**RECENT DEVELOPMENTS IN PATENT LAW (FALL 2019)**

**UPDATED THROUGH 12/08/2019**

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# PATENTABLE SUBJECT MATTER

#### Mechanical Inventions

#### *Am. Axle & Mfg., Inc. v. Neapco Holdings LLC*, 939 F.3d 1355 (Fed. Cir. October 3, 2019)

In this appeal from the District of Delaware, the Federal Circuit (Judges Dyk and Taranto) affirmed the claims for propeller shaft vibration attenuation liners were patent ineligible for being directed towards Hooke’s law, a law of physics concerning elasticity, without an inventive concept.[[4]](#footnote-4) Judge Moore dissented.

 American Axle & Manufacturing’s (“AMM”) ‘911 patent involved a “method for manufacturing driveline propeller shafts (‘propshafts’) with liners designed to attenuate vibrations through a shaft assembly.”[[5]](#footnote-5) Propshafts in operation generate noise through three different modes of vibration at different frequencies.[[6]](#footnote-6) Prior art used liners or weights to dampen individual modes of vibration.[[7]](#footnote-7) The ‘911 patent claims included an instruction to “tune” a liner to dampen two modes of vibration at once.[[8]](#footnote-8) The district court found the claims were essentially just a direction to apply Hooke’s Law, a law of physics describing an object’s elasticity and vibration frequency, and did not provide a means of crafting the liner or propshaft.[[9]](#footnote-9) Because the claims were directed toward a law of nature without an inventive concept, the district court help the patent invalid.[[10]](#footnote-10)

 The Federal Circuit affirmed. At step one of the *Alice* test, the court found the claims were directed towards a law of nature.[[11]](#footnote-11) While the method of actually tuning the liner for the desired result may have been more complex than merely applying Hooke’s law, such a method was not claimed in the patent.[[12]](#footnote-12) Essentially, the claim’s instruction was to perform “an ad hoc trial-and-error process of changing the characteristics until a desired result is achieved” using known laws of physics.[[13]](#footnote-13) Since the claim involved applying natural laws, it failed step one of *Alice.[[14]](#footnote-14)* At step 2 of the *Alice* test, the court found no inventive concept because the steps cited in the claims were either conventional or in the prior art.[[15]](#footnote-15) The court declined to separately consider the dependent claims because AAM did not argue the dependent claims would change the eligibility analysis and thus waived the argument.[[16]](#footnote-16)

 Judge Moore dissented. At step one of *Alice*, she would have held the claims not directed at a law of nature because the independent claims involved more than just applying Hooke’s law and the dependent claims limited “the physical characteristics of the liners to be used and their positioning within the drive shaft.”[[17]](#footnote-17) At step two of *Alice*, she would have held the claims contained “many” inventive concepts that at least should have been tried as questions of fact.[[18]](#footnote-18) In particular, she found persuasive AAM’s assertion that liners had not previously been used to attenuate “bending mode” vibrations in propshafts.[[19]](#footnote-19) Further, she believed the majority’s issue with the claims were really with enablement, not eligibility, and thus improperly ruled the patent ineligible under § 101.[[20]](#footnote-20)

#### *Chamberlain Grp., Inc. v. Techtronic Indus. Co.,* 935 F.3d 1341 (Fed. Cir. August 21, 2019)

In this appeal from the Northern District of Illinois, the Federal Circuit (Judges Lourie, O’Malley, and Chen) reversed a decision of patent eligibility, holding claims for a moveable barrier operator that wirelessly communicated its status was directed to the abstract idea of wireless communication without an inventive concept.[[21]](#footnote-21)

Chamberlain Group’s (“CG”) ‘275 patent involved an apparatus and method for wirelessly communicating status information of moveable barriers, such as garage doors.[[22]](#footnote-22) The district court held found claims were directed towards wireless, status-transmitting garage door openers, not just the abstract idea of data transmission.[[23]](#footnote-23) Further, the court found the invention was an improvement over the data transmitting process in the prior art.[[24]](#footnote-24)

The Federal Circuit reversed.[[25]](#footnote-25) At step one of the *Alice* test, the court found the only difference in the claimed moveable barrier operator from the prior art was that it communicated status information wirelessly.[[26]](#footnote-26) Thus, the claim was directed to “wirelessly communicating status information about a system.”[[27]](#footnote-27) Having already found similar claims to be abstract ideas in past cases, the court held the “broad concept of communicating information wirelessly, without more, is an abstract idea.”[[28]](#footnote-28)

 At step two, the court found no inventive concept in the patent.[[29]](#footnote-29) The invention included “conventional components, all recited in a generic way.”[[30]](#footnote-30) While the prior art may not have combined the components in such a way, the alleged inventive concept was just wireless transmission.[[31]](#footnote-31) The court held “[w]ireless communication cannot be an inventive concept here, because it is the abstract idea that the claims are directed to.”[[32]](#footnote-32)

## Software and Business Method Cases

### Unpatentable

#### *Solutran, Inc. v. Evalon, Inc.*, 931 F.3d 1161 (Fed. Cir. July 30, 2019).

In this appeal from the District of Minnesota, the Federal Circuit reversed and held the patent was “directed to the abstract idea of crediting a merchant’s account as early as possible while electronically processing a check” and without inventive concept.[[33]](#footnote-33)

The ’945 patent claimed a method for processing checks.[[34]](#footnote-34) To paraphrase, banks would 1) receive data captured at sale through magnetic ink character recognition (MICR), 2) immediately credit the merchant’s account, 3) later receive the check at the bank and take a digital scan, 4) compare the MICR data and the scanned image.[[35]](#footnote-35) The district court agreed with an earlier Patent Trial and Appeal Board covered business method review. Both reasoned that the patent was directed towards processing paper checks, not towards processing data abstracted from the checks — and so not directed to an abstract idea.[[36]](#footnote-36) The district court alternatively found that, even if directed to an abstract idea, the patent disclosed an inventive concept (here a nonobvious combination of steps) and passed the machine-or-transformation test (transforming paper checks into digital images).[[37]](#footnote-37)

The Federal Circuit reversed.[[38]](#footnote-38) The Board and lower court wrongly believed that patent claims involving physical objects could not be directed to abstract ideas.[[39]](#footnote-39) At step one, the claims were directed towards “crediting the merchant’s account” as soon as possible, or more specifically towards crediting the account “before the paper check is scanned” — and “this is an abstract idea.”[[40]](#footnote-40) Rapidly crediting a merchant’s account was a “long-standing commercial practice,” just as hedging was in *Bilski v. Kappos*.[[41]](#footnote-41) And the check processing steps used here were akin to the “data collection, recognition, and storage” steps deemed abstract elsewhere.[[42]](#footnote-42) Indeed, “the specification states . . . that the steps of the claim [we]re conventional processes.”[[43]](#footnote-43) No caveat could save the claims from abstraction. They did not disclose “a specific improvement to the way computers operate,”[[44]](#footnote-44) nor “‘rules with specific characteristics’ [used] to create a technical effect.”[[45]](#footnote-45)

At step two, the court did not find an inventive concept. “Reordering the [prior art] steps so that account crediting occurs before check scanning” was precisely what the court found as “the abstract idea in the claim, making it insufficient to constitute an inventive concept.”[[46]](#footnote-46) The court also rejected the argument that scanning checks passed a machine-or-transformation test, should such a test be good law.[[47]](#footnote-47) “Merely using a general-purpose computer and scanner to perform conventional activities in the way they always have, as the claims do here, does not amount to an inventive concept.”[[48]](#footnote-48)

#### *Trading Techs. Int’l, Inc. v. IBG LLC*, Nos. 2017-2257, 2017-2621, 2018-1063 (Fed. Cir. Apr. 18, 2019).

 In this appeal from the Patent Trial and Appeals Board (“PTAB”), the Federal Circuit (Moore, J., with Mayer and Linn, JJ.) affirmed that claims directed towards a graphical user interface for electronic trading were patent-ineligible.[[49]](#footnote-49)

 The case concerned the ’999, ’056, and ’347 patents, which generally disclosed receiving bid and offer information, displaying indicators for them, receiving user inputs, and sending orders.[[50]](#footnote-50) Each “disclose[d] different ways of submitting orders and use[d] slightly different terminology,” such as dictating the use of a graphed axis, but “these differences ha[d] no effect on [the Federal Circuit’s] eligibility determination at step one,” and little, it seemed, at step two.[[51]](#footnote-51)

 At step one, the Federal Circuit affirmed the PTAB’s finding that the claims were directed to “the abstract idea of graphing (or displaying) bids and offers to assist a trader to make an order.”[[52]](#footnote-52) “The fact that the claims add a degree of particularity as to how an order is placed in [a given] case does not impact our analysis at step one.”[[53]](#footnote-53) Nor did the fact the patents concerned a “computer-based method” save the claims from being found abstract; the methods “[did] not improve the functioning of the computer, make it operate more efficiently, or solve any technological problem.”[[54]](#footnote-54)

 At step two, the court’s discussion differed little between the patents. While each may have improved the intuitiveness of the process for traders, each did so using conventional graphical elements, and such improvement was not the same as improving computers themselves—and so not patentable.[[55]](#footnote-55)

#### *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759 (Fed. Cir. Mar. 28, 2019)

 In this appeal from the District Court of Maryland, the Federal Circuit (Prost, C.J., with Reyna and Taranto, JJ.) affirmed that claims to apparatuses and methods for networking electric-vehicle charging stations were patent-ineligible at step two.[[56]](#footnote-56)

 The case concerned four patents enabling “site hosts, drivers, and utility companies to communicate in real time,” such as for demand management and vehicle-to-grid energy transfer.[[57]](#footnote-57)

 The court carefully explained the “tools” for interpreting whether claims are “directed to” abstract ideas at step one.[[58]](#footnote-58) One tool is to look at the specification for “the problem facing the inventor”; if the problem is abstract, even the existence of technical details in the specification or tangible components in the claim body will not likely save the patent from being directed to an abstract idea.[[59]](#footnote-59) Another tool is to evaluate whether the claims would preempt a longstanding practice or a building block impairing “the entire industry’s ability” to innovate.[[60]](#footnote-60) If so, even a tangible component is likely a “mere conduit” or “technological environment” for an abstract idea.[[61]](#footnote-61)

 At step one, the court found that while the challenged claims “vary in some respects, they are all directed to the abstract idea of communicating over a network for device interaction.”[[62]](#footnote-62) The specifications made clear “the inventors here had the good idea to add networking capabilities to existing charging stations to facilitate various business interactions.” However, given this was an abstract solution to an abstract problem, even tangible but not-yet detailed claim elements, such as “electrical couple,” did not make the claims specific at step one.[[63]](#footnote-63) Similarly, the concept of network communication is a “building block of the modern economy,” and so the claims adding such communication to electric vehicle rechargers went beyond what § 101 permits and risked preempting large swaths of technology.[[64]](#footnote-64)

On the second step, the court rejected ChargePoint’s assertion that applying network control to charge stations was an unconventional way to solve problems in charging management. That was because “network control is the abstract idea itself, and ‘a claimed invention’s use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention significantly more than that ineligible concept.’”[[65]](#footnote-65) Or, reading the claims another way, “demand response” was a conventional business practice, and applying the concept of “demand response” to charging stations was not sufficiently inventive, either.[[66]](#footnote-66)

#### *University of Florida Research Found. v. General Elec. Co.*, 916 F.3d 1363 (Fed. Cir. Feb. 26, 2019).

 In this appeal from the Northern District of Florida, the Federal Circuit affirmed that the patent claims were directed towards implementing the abstract idea of collecting and analyzing bedside data using a computer and lacked inventive concept.[[67]](#footnote-67)

The University of Florida’s ’251 patent claimed a method of integrating treatment data from bedside machines by receiving data, converting it into more universal formats, performing operations at a remote location, and presenting results back on bedside interfaces.[[68]](#footnote-68) The district court found the claims directed to the abstract idea of “collecting, analyzing, manipulating, and displaying data,” and without inventive concept.[[69]](#footnote-69)

The Federal Circuit affirmed.[[70]](#footnote-70) This was “a quintessential ‘do it on a computer’ patent: it acknowledges that data from bedside machines was previously collected, analyzed, manipulated, and displayed manually [using paper and pencils], and it simply proposes doing so with a computer.”[[71]](#footnote-71) Rather than improve computers, the claims merely use computers as tools to implement an abstract idea.[[72]](#footnote-72) The “converting” step did not change this result. A method for converting data from multiple formats into one might be a patentable improvement to computers — but nothing in the claims disclosed how such conversion was to be specifically accomplished.[[73]](#footnote-73)

 At step two, no inventive concept saved the claims.[[74]](#footnote-74) The court distinguished *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*.[[75]](#footnote-75) There, the uniquely remote location for a web filtering mechanism improved the filtering process and, this court stressed, thereby made the filtering method inventive and patentable.[[76]](#footnote-76) In this case, even if remote analysis were unique, such remote analysis was not shown to clearly contribute to improved data processing.[[77]](#footnote-77)

### Patentable

#### *Koninklijke KPN N.V. v. Gemalto M2M GmbH*, 942 F.3d 1143 (Fed. Cir. Nov. 15, 2019)

 In this appeal from the District of Delaware, the Fedearl Circuit reversed a judgment on the pleadings, holding the disputed method and devices for detecting data transmission errors were not directed towards the abstract idea of data manipulation and were therefore patent eligible.[[78]](#footnote-78)

 Koninklijke’s ‘662 patent claims a method and devices for dynamically generating “check data,” data compared on each end of a communication channel to see if any errors occurred during transmission.[[79]](#footnote-79) According to the patent, the prior art is prone to “systematic errors” because it may produce the same check data by coincidence even if a data block was corrupted.[[80]](#footnote-80) At step one of the *Alice* test, the district court found the claims were directed towards the abstract ideas of “reordering data and generating additional data” because the claims did not say how to actually reorder the data, generate more data, or how to use or transmit the reordered and generated data.[[81]](#footnote-81) At step two, the district court held the proposed inventive concept was not captured by the claims.[[82]](#footnote-82)

 The Federal Circuit reversed.[[83]](#footnote-83) At step one of the *Alice* test, the Court concluded the disputed claims were patent-eligible because “they are directed to a non-abstract improvement in an existing technological process (i.e., error checking in data transmissions).”[[84]](#footnote-84) The claimed invention “enables the detection of persistent systematic errors in data transmissions that prior art systems were previously not equipped to detect.”[[85]](#footnote-85) Furthermore, the claims recite a specific method of varying check data generation by instructing that the original data be modified “in time.”[[86]](#footnote-86) While the claims involve data processing, they cite a specific use for the permutation and the specific implementation enables the improvement over the prior art. Thus, the disputed claims are patent-eligible.[[87]](#footnote-87)

#### *SRI Int’l, Inc. v. Cisco Sys., Inc.*, 930 F.3d 1295 (Fed. Cir. Mar. 20, 2019, modified July 12, 2019)

 In this appeal from the District of Delaware, the Federal Circuit (Stoll, J., with O’Malley, J.) affirmed the denial of summary of judgment on ineligibility, holding that patents teaching network security methods were eligible under § 101 at step one.[[88]](#footnote-88) Judge Lourie dissented.[[89]](#footnote-89)

 Two network security patents were at issue. The ’615 and ’203 patents disclose methods of computer-automated hierarchical event monitoring, wherein network monitors are deployed, detect activity, and submit reports to a superior monitor (which looks for patterns).[[90]](#footnote-90) The district court found the patents directed towards eligible subject matter.[[91]](#footnote-91)

 The Federal Circuit agreed, “resolv[ing] the eligibility issue at *Alice* step one.”[[92]](#footnote-92) “[T]he claims are more complex than merely reciting the performance of a known business practice on the Internet and are better understood as being necessarily rooted in computer technology in order to solve a specific problem in the realm of computer networks.”[[93]](#footnote-93) That is,

[t]he claims are directed to using a specific technique—using a plurality of network monitors that each analyze specific types of data on the network and integrating reports from the monitors—to solve a technological problem arising in computer networks: identifying hackers or potential intruders into the network.[[94]](#footnote-94)

In so holding, the court rejected three of Cisco’s arguments: that the patents were directed to collecting and analyzing data (they were directed to improving computers in a particular way), that the patent did not teach any improvements to computers (these practices improved computers), and that the human mind could infringe by going through these steps (it could not at the scale of network activity contemplated by the patent).[[95]](#footnote-95) No step two analysis was needed.

 In dissent, Judge Lourie said the claims should have been found analogous to those in *Electric Power Group, LLC v. Alstom, S.A.* and so ineligible.[[96]](#footnote-96) There, the claims were directed to selecting, collecting, analyzing, and displaying data; their limitation to the technological environment of power-grid monitoring did not make them patent-eligible.[[97]](#footnote-97) Here, at step one, Judge Lourie would have held the claims directed to the abstract idea of network security (or even simply “moving of information”).[[98]](#footnote-98) At step two, Judge Lourie would have held there was no inventive concept, as the specification did not disclose the need for anything other than conventional computers and the claims did not teach any “*specific way* of enabling a computer to monitor network activity.”[[99]](#footnote-99) Here, just as in *Electric Power*, Judge Lourie would have found the claims “drawn to using computers as tools to solve a problem, rather than improving the functionality of computers and computer networks.” [[100]](#footnote-100) In *Electric Power*, as here, the claims were “rooted in computer technology only to the extent that the broadly-recited steps required a computer.”[[101]](#footnote-101)

 In response to a combined petition for rehearing and rehearing en banc, rehearing en banc was denied.[[102]](#footnote-102) Rehearing was granted in part and denied in part.[[103]](#footnote-103) The panel reissued its opinion with amendments, but only to the part concerning attorneys’ fees, not addressed in this review.[[104]](#footnote-104)

#### *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306 (Fed. Cir. June 25, 2019).

 In this appeal from the Northern District of California, the Federal Circuit vacated a decision of patent ineligibility and held that “plausible and specific factual allegations” of an inventive concept in the complaint (even if not in the specification, as in *Berkheimer v. HP Inc.*) precluded a finding of ineligibility on a motion to dismiss.[[105]](#footnote-105)

 The four asserted patents shared a specification; they disclosed connecting a digital device, like a camera, to a mobile device so that a user could immediately post media to a website.[[106]](#footnote-106) The patents were said to improve upon the prior art of transferring data using a USB cable or using one device.[[107]](#footnote-107) One patent, the ’794 patent, generally taught providing Bluetooth software on both devices, pairing them, detecting and transferring new data from the digital device to the mobile device, and then sending the data from there to a website.[[108]](#footnote-108) The ’752 patent further required using a cryptographic key, as well as HTTP for the final web transfer.[[109]](#footnote-109) The ’847 patent was similar.[[110]](#footnote-110) Finally, a fourth patent, the ’698 patent, more generally treated devices using “short-range wireless,” not just Bluetooth, and yet more specifically treated digital cameras, not just generic data-gathering devices.[[111]](#footnote-111)

In district court, at step one the patents were found “directed to the abstract idea of ‘acquiring, transferring, and publishing data and multimedia content on one or more websites.’”[[112]](#footnote-112) At step two, the district court found no inventive concept. Cellspin argued that there was a factual dispute as to whether the combination of elements was “well-understood, routine and conventional,” citing *Berkheimer*, then newly announced, for the proposition that such disputed facts precluded summary judgment.[[113]](#footnote-113) But the district court viewed *Berkheimer* as inapplicable, as this was a motion to dismiss, and as the plaintiff had failed to identify where its specification treated the inventive concepts it claimed in its complaints.[[114]](#footnote-114)

 On appeal, the Federal Circuit accepted the district court’s findings at step one,[[115]](#footnote-115) but at step two extended *Berkheimer* to hold that a factual dispute about inventive concept, even if generated by a complaint (not just a specification), can preclude resolution of patent eligibility on a motion to dismiss.[[116]](#footnote-116) The specification’s failure to underscore the inventive contribution did not matter:

While we do not read *Aatrix* [*Software, Inc. v. Green Shades Software, Inc.*, which came after *Berkheimer*,] to say that any allegation about inventiveness [made in a complaint], wholly divorced from the claims or the specification, defeats a motion to dismiss, plausible and specific factual allegations that aspects of the claims are inventive are sufficient. As long as what makes the claims inventive is recited by the claims, the specification need not expressly list all the reasons why this claimed structure is unconventional.[[117]](#footnote-117)

Here, Cellspin’s complaint alleged plausibly inventive contributions. Prior art allegedly

* relied either on wireline transfer or on a single device, and the wireless, two-device process eliminated inconvenience and heft;
* did not wait to pair before attempting transfer, and the claimed process saved this potentially wasted effort;
* did not use an HTTP transfer from the last device to the website.[[118]](#footnote-118)

Further, even if individual elements (using Bluetooth, for instance) were conventional, “implementing a well-known technique with particular devices in a specific combination . . . can be inventive.”[[119]](#footnote-119) The complaint plausibly alleged “*significantly more* than the idea of capturing, transferring, or publishing data,” making motion to dismiss inappropriate.[[120]](#footnote-120)

#### *MyMail, Ltd. v. ooVoo, LLC*, 934 F.3d 1373 (Fed. Cir. August 16, 2019)

In this appeal from the Northern District of California, the Federal Circuit vacated and remanded a finding of patent ineligibility for methods of modifying a software toolbar without user interaction. [[121]](#footnote-121)

MyMail’s ‘863 and ‘070 involve methods of automatically updating a toolbar on an internet connected device without user input by communicating with a server.[[122]](#footnote-122) At step one of the *Alice* test, the district court held the claimed inventions were directed at the abstract of ideas of processing information and using network communication to update software.[[123]](#footnote-123) At step two of the *Alice* test, the district court held there was no inventive concept to save the claims because toolbars and servers are widely used components and modifying toolbars based on databases on a server is common practice.[[124]](#footnote-124) Thus, the district court held the patents were ineligible under § 101 and granted ooVoo’s motion for judgement on the pleadings.[[125]](#footnote-125)

The Federal Circuit vacated and remanded. The parties had disagreed on the construction of the term “toolbar”, but the district court did not construe the term or address the construction dispute at all.[[126]](#footnote-126) However, “if the parties raise a claim construction dispute at the Rule 12(c) stage, the district court must either adopt the non-moving party’s constructions or resolve the dispute to whatever extent is needed to conduct the § 101 analysis.”[[127]](#footnote-127) Thus, the district court erred by not addressing the construction dispute before ruling on eligibility under § 101.[[128]](#footnote-128) The Federal Circuit declined to construe the term in the first instance or rule on patent eligibility.[[129]](#footnote-129)

## Life Sciences Claims

### Unpatentable

#### *Cleveland Clinic Found. v. True Health Diagnostics LLC*, No. 2018-1218, 2019 WL 1452697 (Fed. Cir. Apr. 1, 2019)

In this appeal from the Eastern District of Virginia, the Federal Circuit (Lourie, J., with Moore and Wallach, JJ.) held that a patent for a test diagnosing cardiovascular disease risk was ineligible under § 101 at step two.[[130]](#footnote-130) In so holding, the Federal Circuit declined to follow Patent and Trademark Office (“PTO”) guidance to the contrary.[[131]](#footnote-131)

In a prior case, the Federal Circuit had held the patent-in-suit ineligible. [[132]](#footnote-132) That ’552 patent disclosed that levels of myeloperoxidase (“MPO”) in the blood are positively correlated with the risk of coronary artery disease, but not with traditional risk factors; directed to a natural law, its claim limitations instructing physicians to conventionally test blood samples and compare them to controls did not add an inventive concept.[[133]](#footnote-133) This case concerned two related patents, the ’597 and ’065 patents, that Cleveland Clinic argued were directed not to comparing MPO levels against controls but to detecting MPO *whatsoever* using given techniques.[[134]](#footnote-134) The district court found the distinction “overly superficial.”[[135]](#footnote-135)

The Federal Circuit agreed: “The rephrasing of the claims does not make them less directed to a natural law.”[[136]](#footnote-136) A natural law is no less natural just “because it can only be observed by use of certain techniques.”[[137]](#footnote-137) Further, Cleveland Clinic conceded in prosecution that the techniques disclosed were conventional, and so added no inventive concept. [[138]](#footnote-138)

This outcome seemed to conflict with the PTO’s “Example 29,” which contained hypothetical claims akin to those in *Ariosa* and prompted examiners to find those claims patent-eligible.[[139]](#footnote-139) But the Federal Circuit determined that the PTO Guidelines were not legally binding or entitled to deference and that “*Ariosa* must control.”[[140]](#footnote-140)

#### *Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC*, 915 F.3d 743 (Fed. Cir. Feb. 6, 2019), *reh’g and reh’g en banc denied*, 927 F.3d 1333 (Fed. Cir. July 3, 2019).

In an appeal from the District of Massachusetts, the Federal Circuit affirmed that diagnostic claims were patent-ineligible.[[141]](#footnote-141) Judge Newman dissented.[[142]](#footnote-142) The panel and full Federal Circuit later denied rehearing and rehearing en banc, generating eight concurring and dissenting opinions.[[143]](#footnote-143)

The ’820 patent covered methods for diagnosing the neurological disorder myasthenia gravis (“MG”) by detecting antibodies for the protein muscle-specific tyrosine kinase (“MuSK”).[[144]](#footnote-144) Prior art diagnosed MG using an antibody present for about 80% of patients; the inventors found that MuSK was present in the remaining 20% of patients.[[145]](#footnote-145) The most specific, representative claim included (1) *contacting* MuSK (or a specific epitope thereof) with a bodily fluid, (2) *immunoprecipitating* any antibody/MuSK complex, and (3) *monitoring* for the “label” on the complex, wherein that label would indicate the presence of the antibodies and of the neurological affliction.[[146]](#footnote-146) The district court found the claims directed to the natural law that MuSK and the antibodies bind, and found that the steps making use of this law were routine.[[147]](#footnote-147)

On appeal, the Federal Circuit affirmed. It held claims 7 and 9 directed to a natural law, “the correlation between the presence of naturally-occurring MuSK autoantibodies in bodily fluid and MuSK-related neurological diseases like MG.”[[148]](#footnote-148) The patent did not claim new laboratory techniques informed by a natural law, as in *CellzDirect*;[[149]](#footnote-149) rather, they merely recited conventional laboratory techniques to be used in light of a natural law, as in *Cleveland Clinic*.[[150]](#footnote-150) Mayo argued that other, unclaimed techniques still could have been used to make diagnoses, showing the natural law was not claimed.[[151]](#footnote-151) But this did not change the result; *Flook* taught that “[p]reemption is sufficient to render a claim ineligible under § 101, but [preemption] is not necessary.”[[152]](#footnote-152) Finally, *Mayo* showed that using man-made substances as part of the claimed process did not mean the claims were directed at anything other than a natural law, either.[[153]](#footnote-153)

At step two, claims 7 and 9 lacked inventive concept individually and in combination.[[154]](#footnote-154) They merely “append[ed] [standard-practice] labeling techniques to a natural law . . . .”[[155]](#footnote-155)

The court considered claim 6 separately, which claimed a diagnostic process using different laboratory techniques.[[156]](#footnote-156) After finding Mayo had waived its arguments specific to claim 6, the court nonetheless opined that these other routine techniques also would have been insufficient to change the outcome at step one or step two.[[157]](#footnote-157)

Judge Newman dissented.[[158]](#footnote-158) She viewed the patent as directed at a “technique,” and the individual steps of that technique as being less conventional. As she summarized:

[T]hese inventors are not claiming the scientific fact of a newly described autoantibody; they are claiming a new multi-step diagnostic method. This is not a law of nature, but a man-made reaction sequence employing new components in a new combination to perform a new diagnostic procedure.[[159]](#footnote-159)

Thus, Judge Newman would have held the patent survived § 101 at step one, and would have reserved analysis of whether any steps in the process were conventional alone or in combination for § 102 and § 103.[[160]](#footnote-160) Judge Newman also stressed the policy concerns of raised by amici from diagnostics and academia.[[161]](#footnote-161)

 The panel and full Federal Circuit denied rehearing and rehearing en banc.[[162]](#footnote-162) Following *per curiam* denials,[[163]](#footnote-163) the court fractured into eight opinions, summarized here:

* **Concurring in denial of petition for rehearing and rehearing *en banc***
	+ *Lourie, J., with Reyna and Chen, JJ*:

Judge Lourie suggested a rule excepting only bare natural laws from eligibility — not claims directed towards “uses or detection of natural laws.”[[164]](#footnote-164) But the Supreme Court’s decision in *Mayo* was binding and precluded the claims here. Claims “focused on detecting new and useful natural laws with conventional steps” are ineligible.[[165]](#footnote-165) True, “new method of treatment” claims[[166]](#footnote-166) and novel “arrangements” of known laboratory techniques are eligible even under *Mayo*.[[167]](#footnote-167) But the claims here in *Ariosa* were directed towards observing a natural law.[[168]](#footnote-168)

* **Concurring in denial of petition for rehearing *en banc***
	+ *Hughes, J., with Prost, C.J., and Taranto, J.*:

Judge Hughes called for the Supreme Court or Congress to clarify diagnostic patent rules.[[169]](#footnote-169) While “the bottom line for diagnostics patents is problematic,” “this is not a problem that we can solve.”[[170]](#footnote-170)

* + *Dyk, J., with Hughes and, in select parts, Chen, JJ.*:

Judge Dyk would bar overbroad claims to natural laws at step one, but permit “a sufficiently specific ‘application of a law of nature or mathematical formula to a known structure or process.’”[[171]](#footnote-171)

Judge Dyk first argued that § 101 is and should be a distinct doctrine. “[T]he doctrines of novelty under § 102, obviousness under § 103, and enablement and written description under § 112 cannot adequately guard against the dangers of overclaiming.”[[172]](#footnote-172) In cases pertaining to patenting abstract ideas, § 101 has usefully invalidated overbroad claims.[[173]](#footnote-173)

 “The problem with § 101 arises not in implementing the abstract idea approach of *Alice*, but rather in implementing the natural law approach of *Mayo*.”[[174]](#footnote-174) *Mayo* and *Myriad* did not consistently address whether diagnostics could be patented. In *Mayo*, the Supreme Court held that even a narrow natural law could not supply inventive concept;[[175]](#footnote-175) in *Myriad*, however, the Court suggested that one claim pertaining to detecting the BRCA1 gene using conventional methods could be patent eligible.[[176]](#footnote-176) (Indeed, Judge Dyk argued that, contrary to language in *Ariosa*,[[177]](#footnote-177) at least some diagnostic patents could be patent-eligible at *Alice*’s second step, just not the patents here.[[178]](#footnote-178))

To resolve this tension and move forward, Judge Dyk would bar overbroad claims to natural laws at step one, but permit “a sufficiently specific ‘application of a law of nature or mathematical formula to a known structure or process.’”[[179]](#footnote-179) “The Supreme Court's opinion in *O'Reilly v. Morse*, the foundation of the Court's jurisprudence on patent eligibility, appears to make this very distinction.”[[180]](#footnote-180) In that case, Morse’s method for printing intelligible signs at a distance was patentable, but not his generic claim to all methods.[[181]](#footnote-181) More recent Supreme Court cases, including *Benson*, *Flook*, and *Diehr*, affirm this distinction.[[182]](#footnote-182) Under such a rule, courts evaluate whether the specific application results from “discovery” and creates “established utility” — and so help ensure no preemption occurs.[[183]](#footnote-183) Had *Mayo* followed this rule, it would have come out the same way.[[184]](#footnote-184) “[T]he reward of a patent [should go] to those who have actually done the work to develop a specific application of a natural law, not those who are the first to the patent office with broad, conceptual claims lacking proven utility in many applications.”[[185]](#footnote-185)

Applying that rule to this case, some claims would have been eligible.[[186]](#footnote-186) These claims covered not simply the relationship between MuSK autoantibodies and MG but specific methods of detecting MuSK and diagnosing MG, a useful result the patentees discovered.[[187]](#footnote-187) “Because [these claims] recite[d] specific applications of the newly discovered law of nature with proven utility, this case could provide the Supreme Court with the opportunity to refine the *Mayo* framework as to diagnostic patents.”[[188]](#footnote-188)

* + *Chen, J.*:[[189]](#footnote-189)

Judge Chen asked the Supreme Court to revive *Diehr*’s “on the whole” approach to patent eligibility and dispense with *Mayo*’s “point of novelty” approach.[[190]](#footnote-190) Further, he asked that the Court develop a “meaning of ‘discovers’ in § 101 separate[] from ‘invents,’” and so enable patents containing “[g]roundbreaking, innovative, or even brilliant discovery” to become patent-eligible.[[191]](#footnote-191)

Judge Chen reasoned that, unlike patents about “horse whispering, or speed dating,”

[n]ew methods for diagnosing medical conditions, as a general matter, intuitively seem to be the kind of subject matter the patent system is designed for: to encourage the risky, expensive, unpredictable technical research and development that people would not otherwise pursue in the hope that if they discover something of great medical value, then they will be protected and rewarded for that successful effort with a patent.[[192]](#footnote-192)

And Judge Chen argued that the Supreme Court’s pre-*Mayo* decisions provided a workable doctrine to enable this result.

Judge Chen would revive the rule in *Diehr*, which “emphasized the need to consider the invention as a whole, rather than ‘dissect the claims into old and new elements . . . in the analysis.’”[[193]](#footnote-193) This “as a whole” approach contrasted with *Mayo*’s “point of novelty/inventive concept reasoning” — a line of reasoning earlier taken in *Flook* but limited by *Diehr* (as shown by the *Diehr* dissent).[[194]](#footnote-194) The *Mayo* approach creates challenges. It suggests that *adding* claim limitations can make a patent less patent-eligible under § 101; further, it stimulates a search for “what the claim is ‘really about’ . . . [that] can be highly subjective and impressionistic.”[[195]](#footnote-195)

Applying this “on the whole” rule here, the claims to “methods of testing for a specific medical condition, employing a sequence of steps that physically transform materials” should have been found patent-eligible.[[196]](#footnote-196)

* **Dissenting in denial of petition for rehearing *en banc***
	+ *Moore, J., with O’Malley, Wallach, and Stoll, JJ.*[[197]](#footnote-197)

Judge Moore would have held that *Mayo* did not preclude finding diagnostic patents eligible.[[198]](#footnote-198) “We have turned *Mayo* into a per se rule that diagnostic kits and techniques are ineligible. That per se rule is ‘too broad an interpretation of this exclusionary principle [which] could eviscerate patent law.’”[[199]](#footnote-199) Laws of nature should not be patentable, nor should they become so by “adding the words ‘apply it.’”[[200]](#footnote-200) Yet “an application of a law of nature . . . to a known structure or process may well be deserving of patent protection.”[[201]](#footnote-201)

To get to that result, Judge Moore would read *Mayo* more carefully in light of § 101. Congress “instruct[ed] that a discovery[, which it called out separately from invention in § 101,] can be the basis for a patent[].”[[202]](#footnote-202) To identify patent-eligible applications, courts “should consider the level of specificity in the claims.”[[203]](#footnote-203) And so in *Mayo*, “[t]he breadth and generality of the . . . claims led to their demise, as they recited nothing more than the natural law.”[[204]](#footnote-204)

Applying the rule here,some of the *Athena* claims “specifically confine their reach to a specific application of the relationship between anti-MuSK antibodies and MG.”[[205]](#footnote-205) Those claims avoid preemption risks and should be patent-eligible.[[206]](#footnote-206)

Judge Moore also spoke at length to the importance of diagnostics to medicine, and the importance of patents to their development.[[207]](#footnote-207) And she concluded by speaking to the patent bar: “No need to waste resources with additional *en banc* requests [seeking to render diagnostics patent-eligible]. Your only hope lies with the Supreme Court or Congress.”[[208]](#footnote-208)

* + *Newman, J., with Wallach, J.*[[209]](#footnote-209)

Judge Newman, like Judge Chen, would have underscored the statement of law in *Diehr*: “In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole.”[[210]](#footnote-210) Like Judge Moore, she was concerned that “[w]e have mistakenly enlarged the Court’s holding [in *Mayo*].”[[211]](#footnote-211) In light of the harmful effects on incentives for developing diagnostics, the Federal Circuit should have reheard the case *en banc* to clarify patent law.[[212]](#footnote-212)

*Diehr* held that “[i]t is inappropriate to dissect the claims into old and new elements and then to ignore the presence of the old elements in the analysis.”[[213]](#footnote-213) In this case, the patent “specification teaches that each claim step is conducted by conventional procedures.”[[214]](#footnote-214) Yet ignoring *Diehr*, the majority determined those steps were “conventional” and so excluded them from “the section 101 analysis, leaving claims 7–9 with only the general ‘concept’ of ‘the correlation between the presence of naturally-occurring MuSK autoantibodies in bodily fluid and MuSK-related neurological diseases like MG.”[[215]](#footnote-215) The resulting finding of ineligibility was therefore incorrect.

 Judge Newman also pointed to the Federal Circuit’s application of § 101 to diagnostic patents as inconsistent with its application of the section to other treatment-related patents; she listed and analyzed two lines of cases, one covering diagnostics and one covering treatment methods.[[216]](#footnote-216)

* + *Stoll, J., with Wallach, J.*[[217]](#footnote-217)

Judge Stoll argued “this court's bright-line rule [against diagnostic patents] is based on an over-reaching and flawed test for eligibility, a test that undermines the constitutional rationale for having a patent system,” and “the court should [have] take[n] this opportunity to correct its erroneous rule.”[[218]](#footnote-218) “The *Mayo* test was guided by broad-sweeping principles that are not applicable to every individual diagnostic claim,” and in particular the principle of barring patents that preempt natural laws.[[219]](#footnote-219) But “[c]ertain diagnostic claims, such as the ones at issue in this case, are so narrowly tailored that preemption is not a reasonable concern.”[[220]](#footnote-220)

* + *O’Malley, J.*[[221]](#footnote-221)

Judge O’Malley also wrote separately to “encourage Congress to amend the Patent Act once more to clarify that it meant what it said in 1952” when it removed the “inventive concept” requirement.[[222]](#footnote-222) She reviewed the history of that amendment. Preceding it, a judge-made doctrine had stressed invention; it barred many patents and proved unworkable even to Judge Learned Hand, who found it “baffling.”[[223]](#footnote-223) Congress replaced this test with § 102 and § 103.[[224]](#footnote-224) “But although Congress so amended the Act decades ago, we continue to apply the invention requirement today under a new name — the ‘inventive concept’ requirement.”[[225]](#footnote-225) If not for this “judicially revived” requirement, claims “directed to uses of natural laws rather than the natural laws themselves would be eligible.”[[226]](#footnote-226) Congress should “clarify that concepts of novelty and ‘invention’ are to be assessed via application of other provisions of the Patent Act Congress designed for that purpose.”[[227]](#footnote-227)

### Patentable

#### *Natural Alternatives Int’l, Inc. v. Creative Compounds, LLC*, 918 F.3d 1338 (Fed. Cir. Mar. 15, 2019)

In this appeal from the Southern District of California, the Federal Circuit (Moore, J., with Wallach, J.) held that patents that “cover using a natural product in unnatural quantities to alter a patient’s natural state, to treat a patient with specific dosages outlined in the patents,” were directed to patent-eligible subject matter at step one.[[228]](#footnote-228) Judge Reyna dissented in part.[[229]](#footnote-229)

The Court considered method and product claims separately.

**Method Claims**: The ’596 patent ’865 patents disclose using unnatural quantities of a naturally occurring amino acid, beta-alanine to increase “the anaerobic working capacity of muscle and other tissue.”[[230]](#footnote-230) The district court found such claims directed to natural laws—those laws being that ingesting more of the amino acid leads to biochemical changes that increase muscular working capacity—and also lacking inventive concept.[[231]](#footnote-231)

On appeal, the Federal Circuit disagreed. It held “[t]hese are treatment claims and as such they are patent eligible.”[[232]](#footnote-232) At step one, *Vanda Pharmaceuticals Inc.* stood for the proposition that “claims that are directed to particular methods of treatment are patent eligible.”[[233]](#footnote-233) And here, as there, the claims “required a doctor to affirmatively administer a drug to alter a patient’s condition from their natural state.”[[234]](#footnote-234) In both cases, a compound was specified, a limitation on dosing was specified, and either a target patient population or target outcome from treatment was specified.[[235]](#footnote-235) These features distinguished these cases from *Mayo*, where the claims required “no actual action be taken based on the measured level of metabolite [that was brought about by the prior art drug and simply observed].”[[236]](#footnote-236) The Federal Circuit said this rule would preserve the patent-eligibility of a hypothetically naturally occurring compound that in correct dosing could cure Alzheimer’s, for instance.[[237]](#footnote-237)

The Federal Circuit nonetheless considered step two. Even had it been proper for the district court to find the claims directed to ineligible subject matter, the district court still would have been in error because it decided the case on the pleadings despite there being a factual dispute as to what activities were conventional in the art.[[238]](#footnote-238)

**Product Claims**: The ’376 and ’084 patent claims were to compositions of the amino acid as used in a dietary supplement or sports drink.[[239]](#footnote-239) The district court found these patents directed to the natural phenomena of their constituent parts, namely beta-alanine and glycine for the ’376 patent, and beta-alanine for the ’084 patent.[[240]](#footnote-240)

The Federal Circuit disagreed.[[241]](#footnote-241) At step one, it reasoned that,

[j]ust as the Method Claims are directed to specific methods of treatment that employ a natural law, the Product Claims are directed to specific treatment formulations that incorporate natural products, but they have different characteristics and can be used in a manner that beta-alanine as it appears in nature cannot.[[242]](#footnote-242)

For instance, the “natural products have been isolated and then incorporated into a dosage form with particular characteristics,” including for example the limitation in the ’084 claims that the dosage be between 0.4 grams and 16 grams.[[243]](#footnote-243) Furthermore, the ’376 patent’s combination of two naturally occurring products appeared to have “synergistic effects” that rendered them patentable together if not separately, with that synergy distinguishing this invention from the unpatenable bacteria mix in *Funk Brothers* (no synergy).[[244]](#footnote-244)

 For good measure, the court reasoned the claims would have been patentable at step two in any case, because the claims contained “dietary supplement limitation[s]” which it said were not conventional (or not indisputably conventional).[[245]](#footnote-245)

 **Manufacturing Claims**: The ’610 patent claimed “suppl[ing]” or “mixing” beta-alanine for use as a dietary supplement in humans to prevent muscle fatigue.[[246]](#footnote-246)

 The Federal Circuit again disagreed with the district court, holding that these claims were “even further removed from the natural law and product of nature at issue in the Method Claims and Product Claims, respectively,” and were “directed to the manufacture of a human dietary supplement with certain characteristics.”[[247]](#footnote-247) When taking the natural supplements, “homeostasis is overcome,” and so the treatment “alters that subject’s natural state.”[[248]](#footnote-248) They were thus specific claims at step one.

**Dissent-in-Part on all Claims**: Judge Reyna wrote separately to protest that the eligibility decision for all claims “relies on a claim construction that improperly imports limitations into the claims and is contradicted by the written description.”[[249]](#footnote-249) Judge Reyna wrote that “[t]his case, and the general development of the law concerning § 101 analysis at the pleading stage, causes me to ask whether the time has come for this court to reconsider whether a Rule 12(c) motion based on § 101 should be decided before claim construction.”[[250]](#footnote-250)

#### *Endo Pharms. Inc. v. Teva Pharms. USA, Inc.*, 919 F.3d 1347 (Fed. Cir. Mar. 28, 2019)

In this appeal from the District of Delaware, the Federal Circuit (Stoll, J., with Clevenger and Wallach, JJ.) reversed the district court and, following *Vanda*, held the asserted claims were not directed toward a natural law and so were patent-eligible.[[251]](#footnote-251)

 The ’737 patent teaches administering the pain killer oxymorphone at lower-than-usual dosages for patients with impaired kidney function.[[252]](#footnote-252) The district court found at step one that the “claims are directed to the natural law that the bioavailability of oxymorphone is increased in people with severe renal impairment.”[[253]](#footnote-253)And at step two, the district court found that the claims’ steps—providing a relevant drug, determining the patient’s renal condition, and administering the drug accordingly—were like those in *Mayo* and not inventive.[[254]](#footnote-254)

 The Federal Circuit reversed. Deciding the case at step one, it found “the claims were directed to a patent-eligible method of using oxymorphone or a pharmaceutically acceptable salt thereof to treat pain in a renally impaired patient.”[[255]](#footnote-255) The court followed its holding in *Vanda*.[[256]](#footnote-256) There, three analogous steps—providing a drug, testing whether a patient is a poor CYP2D6 metabolizer, and administering the drug—were found patent-eligible.[[257]](#footnote-257) Here, the claims were “legally indistinguishable”[[258]](#footnote-258): they were “directed to a specific method of treatment for specific patients using a specific compound at specific doses to achieve a specific outcome.”[[259]](#footnote-259) Also, unlike in *Ariosa*, where claims were directed to “observation or detection” of cell-free fetal DNA,[[260]](#footnote-260) the claims here were directed to “to a new and useful method of treating pain in patients with impaired renal function.”[[261]](#footnote-261)

To clarify the difference between *Mayo*-and *Vanda*-style claims, the court offered two points. First, the claims in *Mayo* claimed all dosing changes informed by a given correlation; by contrast, the claims in *Vanda* (and here) claimed only those dosing changes needed to achieve a particular outcome.[[262]](#footnote-262) (Here, for instance, the dosing was limited to those amounts resulting in no more than a certain amount of detectable drug in the blood over a 12hr period.[[263]](#footnote-263)) That distinction seems dubious at best. Second (and quite similarly), whereas *Mayo* preempted all treatment decisions by doctors that took the natural relationship into account, *Vanda* and this case’s “specific treatment steps” only preempted a “narrow” range of treatment plans.[[264]](#footnote-264) *Mayo* hadleft open that “method of treatment” claims could be patent-eligible, and *Vanda* and this case theoretically showed what such claims can look like.[[265]](#footnote-265)

 As the court noted, here (unlike in *Vanda*), no claims limited doctors to particular methods of testing the patients for renal impairment (a particular assay was required for determining the patient’s condition in *Vanda*).[[266]](#footnote-266) As a result, this case could be seen as extending *Vanda*’s holding.

## Printed Matter

#### *In re Guldenaar Holding B.V.*, 911 F.3d 1157 (Fed. Cir. Dec. 28, 2018)

In this appeal from the Patent Trial and Appeal Board (PTAB), the Federal Circuit affirmed as patent-ineligible claims that were directed to an abstract dice game and that entailed no inventive concept other than the pattern of die markings—themselves held to be printed matter.[[267]](#footnote-267)

The ’196 patent at issue concerned “a method of playing a dice game” where three die had a distinctive marking that appeared on just one face on the first dice, on two faces on the second dice, and on three faces on the third dice.[[268]](#footnote-268) Wagers were to be made as to how many of the markings would appear face up.[[269]](#footnote-269) The examiner rejected the claims as directed toward the abstract idea of “rules for playing a game.”[[270]](#footnote-270) The PTAB affirmed.[[271]](#footnote-271)

On appeal, the Federal Circuit affirmed, notwithstanding the applicant’s new arguments related to the distinctively arranged die markings.[[272]](#footnote-272) As below, the claims were held directed to an abstract concept on *Alice*’s first step.[[273]](#footnote-273) The court analogized rules for wagering games to rules for financial processes like those in *Bilski*,[[274]](#footnote-274) an analogy earlier made in *Smith*.[[275]](#footnote-275) The court left open that some such games might still be saved at *Alice*’s second step.[[276]](#footnote-276) So the court moved to that step. And here, the applicant newly argued that the claims’ inventive concept was not related to the conventional wagering but to the uniquely arranged markings on one, two, and three sides of the die.[[277]](#footnote-277)

But the die markings were printed matter—“[c]laim limitations directed to the content of information and lacking a requisite functional relationship” to the patented matter—and so were themselves unpatentable.[[278]](#footnote-278) The markings communicated “whether the player has won or lost a wager.”[[279]](#footnote-279) That information lacked “functional[] relat[ion] to the substrate.”[[280]](#footnote-280) This contrasted with, for example, the volumetric markings on the side of a specialized measuring cup, which have been held patentable.[[281]](#footnote-281)

Concurring, Judge Mayer would have held games “categorically ineligible for patent.”[[282]](#footnote-282)

# DISCLOSURE

## Definiteness

#### *HZNP Medicines LLC v. Actavis Labs. UT, Inc.*, No. 2017-2149, 2019 WL 5076226 (Fed. Cir. Oct. 10, 2019)

 In this appeal from the District of New Jersey, the Federal Circuit affirmed three terms in the patents at issue were indefinite.[[283]](#footnote-283)

HZNP’s twelve patents-at-issue claimed either methods or compositions for treating osteoarthritis.[[284]](#footnote-284) The district court concluded three asserted claims in the patents were indefinite:[[285]](#footnote-285) the term “the topical formulation produces less than 0.1% impurity A after 6 months at 25°C and 60% humidity,” where “impurity A” is not defined;[[286]](#footnote-286) the term “the formulation degrades by less than 1% over 6 months” without a means of evaluating degradation;[[287]](#footnote-287) and the term “consisting essentially of,” after finding the invention’s basic and novel property “better drying time” also indefinite.[[288]](#footnote-288) The Federal Circuit affirmed the district court’s indefiniteness holdings.[[289]](#footnote-289) The claims and specification did not provide sufficient information for a person ordinarily skilled in the art to discern the identity of “impurity A” with reasonable certainty.[[290]](#footnote-290) Furthermore, “[s]ince ‘impurity A’ is indefinite, it logically follows that another term, such as the ‘degrades’ term, which relies on ‘impurity A’ for its construction, must also be indefinite.”[[291]](#footnote-291)

Finally, the court noted “consisting essentially of” is “a transition phrase often used to signal a partially open claim.”[[292]](#footnote-292) The phrase allows the inclusion of unlisted ingredients that will not affect the invention’s basic and novel properties.[[293]](#footnote-293) Thus, considering the definiteness of the invention’s basic and novel properties was necessary to resolve the definiteness of the term “consisting essentially of.”[[294]](#footnote-294) The Federal Circuit held the district court did not err in applying the *Nautilus* standard to the inventions basic and novel properties.[[295]](#footnote-295) By that standard, the Federal Circuit agreed that the invention’s basic novel property of “better drying time” was indefinite.[[296]](#footnote-296) “Two tests are disclosed, but those tests do not provide consistent results upon which a POSITA would be able to evaluate ‘better drying time.’”[[297]](#footnote-297) The property “basic drying time” is therefore indefinite, which leads to the term “consisting essentially of” also being indefinite.[[298]](#footnote-298)

## Enablement and Written Description

#### *Idenix Pharm. LLC v. Gilead Scis. Inc.*, 941 F.3d 1149 (Fed. Cir. Oct. 30, 2019)

 In this Appeal from the District of Delaware, the Federal Circuit affirmed in part and reversed in part, holding the disputed patent was ineligible for lack of written description.[[299]](#footnote-299)

Idenix’s ‘597 patent relates to a method and composition for treating the hepatitis C virus (“HCV”).[[300]](#footnote-300) Idenix alleged Gilead’s new drug sofobuvir infringed the ‘597 patent.[[301]](#footnote-301) Gilead argued the ‘579 patent was invalid for not meeting the enablement or written description requirements.[[302]](#footnote-302) At trial, the jury found for Idenix, after which Gilead filed for judgment as a matter of law on both enablement and written description.[[303]](#footnote-303) The district court grated the motion on enablement, but denied the motion on written description.[[304]](#footnote-304) The Federal Circuit affirmed the lower court’s decision on enablement.[[305]](#footnote-305) However, the Federal Circuit reversed the written description decision.[[306]](#footnote-306)

For written description, The Federal Circuit considered whether the ‘597 patent sufficiently demonstrates that Idenix was in possession of embodiments of 2'-methyl-up nucleosides that treat HCV but do not appear in the specification as specific examples or formulas.[[307]](#footnote-307) Idenix did not create the specific embodiment used in Gilead’s product until after filing the ‘579 patent application.[[308]](#footnote-308) Nonetheless, Idenix argued “its claims are directed to the entire genus of 2'-methyl-up compounds for treating HCV, and are enabled by the disclosure of a number of examples, without needing to disclose each species of nucleoside.”[[309]](#footnote-309)

The Court was not convinced, holding the ‘597 patent “fails to provide sufficient blaze marks to direct a POSA to the specific subset of 2'-methyl-up nucleosides that are effective in treating HCV.”[[310]](#footnote-310) The patent described eighteen different formulas for embodiments that could treat HCV, but never indicated the existence of other effective embodiments.[[311]](#footnote-311) Furthermore, the patent gave no “meaningful guidance into what compounds beyond the examples and formulas, if any, would provide the same result.”[[312]](#footnote-312) Thus, the Court concluded Idenix was not in possession of the 2'-methyl-up embodiments effective for treating HCV at the time of filing the patent.[[313]](#footnote-313)

Judge Newman dissented.[[314]](#footnote-314) She would have upheld the jury verdict because, given the evidence presented, she believed “a reasonable jury could have understood the claims as directed to the nucleosides that are specifically described and that are shown to have the claimed antiviral activity.”[[315]](#footnote-315)

#### *Enzo Life Scis., Inc. v. Roche Molecular Sys.*, 928 F.3d 1340 (Fed. Cir. July 5, 2019)

 In this consolidated appeal from cases in the District of Delaware, the Federal Circuit affirmed that the claims were invalid for lack of enablement.[[316]](#footnote-316) The appeal concerned the ’180 patent covering non-radioactive labeling of polynucleotides and the ’405 patent covering so-labeled probes to identify DNA chromosomes.[[317]](#footnote-317)

On appeal, the Federal Circuit affirmed. To be fully enabled, the ’180 patent would need to teach labeling polynucleotides in such a way that so-labeled probes could hybridize with other nucleotide strands and be detected.[[318]](#footnote-318) In other words, these claims were necessarily limited not just by structure but by functionality, much as the claims in *Wyeth and Cordis Corp. v. Abbott Laboratories*.[[319]](#footnote-319) But “[t]he specification’s guidance as to how [various] variables would or would not impact the functionality of the claimed probes [wa]s sparse.”[[320]](#footnote-320) Among the variables complicating enablement were the broad types of non-radioactive labels that had been claimed, and the broad sets of nucleotide positions for those labels. Skilled artisans at the time believed that attaching non-radioactive labels at positions other than a known few would complicate hybridization. Enzo’s own expert conceded testing would have been necessary for each position.[[321]](#footnote-321) Yet tens of thousands if not millions of embodiments were within the ’180 patent’s claims.[[322]](#footnote-322) And the one “working” example provided appeared on inspection to be a paper example.[[323]](#footnote-323) The ’405 patent shared the same specification, but claimed even more embodiments.[[324]](#footnote-324) Both were held unenabled.

#### *Nuvo Pharms. (Ireland) Designated Activity Co.  v. Dr. Reddy’s Labs. Inc.*, 923 F.3d 1368 (Fed. Cir. May 15, 2019)

 In this appeal from the District of New Jersey, the Federal Circuit reversed and found patents invalid for lack of written description.[[325]](#footnote-325) The “specification provide[d] nothing more than the mere claim that uncoated [proton-pump inhibitors (“PPI”)] might work,” and yet “persons of ordinary skill in the art would not have thought” this so; “the specification [was therefore] fatally flawed.”[[326]](#footnote-326)

 The case concerned Nuvo’s ’907 and ’285 patents, which teach combining a non-steroidal anti-inflammatory drug (“NSAID,” like aspirin or naproxen) with an acid inhibitor (like PPIs) in one tablet for coordinated release.[[327]](#footnote-327) Generic drug makers argued the patent lacked written description, and that undisclosed inventions were covered by the claims. Among other things, the patents were said to lack possession of the claimed effectiveness of uncoated anti-acids (specifically of uncoated proton pump inhibitors (“PPI”)). But the district court found that the written description of the disadvantages of coating the anti-acids sufficed to show possession.[[328]](#footnote-328)

 On appeal, the federal circuit reversed.[[329]](#footnote-329) The court first rejected any new reading of the claims that would omit a claim to the effectiveness of uncoated anti-acids.[[330]](#footnote-330) Moving to the substance, the court at first disagreed with the patent’s challengers that experimental data, which was not included in the specifications, was necessary to show possession.[[331]](#footnote-331) But it agreed with the challengers that, in any case, no statements that were included sufficed to show possession: not the claims themselves, not descriptions calling for effective amounts of PPI generally and of the PPI omeprazole in particular, and not descriptions of the required concentrations of PPI.[[332]](#footnote-332) These statements “recite[d] the claim limitation,”[[333]](#footnote-333) but “reproducing the claim language *in ipsis verbis* in the specification” is not enough.[[334]](#footnote-334) Moreover, though possession must be apprised from the four corners of the specification, the inventor’s own testimony at trial suggested a lack of possession.[[335]](#footnote-335)

Finally, the Federal Circuit addressed an inherency argument. An adequately enabled invention is sometimes but not always adequately described, as the policy purposes of the latter doctrine are different from the former.[[336]](#footnote-336) This case contrasted with that of *Allergan, Inc. v. Sandoz Inc.*, 796 F.3d 1293 (Fed. Cir. 2015). There, the patentee satisfied written description by showing first that the specification included experimental data revealing a trend in effectiveness and second that the claims specified an exact, effective formulation — even though this formulation was not disclosed in the data.[[337]](#footnote-337) Here, by contrast, no experimental data was provided, and the parties disputed whether uncoated PPI was ever inherently effective.[[338]](#footnote-338)

#### *Centrak, Inc. v. Sonitor Techs.. Inc.*, 915 F.3d 1360 (Fed. Cir. Feb. 14, 2019)

In this appeal from the District Court of Delaware, the Federal Circuit reversed the District Court’s summary judgment of invalidity for lack of written description.[[339]](#footnote-339)

The ’909 patent-in-suit was a divisional application of the issued ’945 patent; while both patents concerned systems for synchronizing timing between a base station and portable devices, the ’909 claims disclosed synchronizing using ultrasonic communication, whereas the ’945 claims disclosed doing so through infrared or radio frequency communications.[[340]](#footnote-340) Only two sentences in the parent’s specification concerned the ultrasonic communication. Sonitor alleged Centrak had not possessed the ultrasound-based RTL system when it filed the parent application.[[341]](#footnote-341) The district court agreed: “[O]ne could not simply drop [an ultrasonic] transmitter into the system as disclosed in the specification and have a functioning [ultrasonic] system,”[[342]](#footnote-342) because the two “fundamentally different” technologies operated at speeds six orders of magnitude apart, posing implementation challenges for ultrasonic systems that the specifications did not address.[[343]](#footnote-343)

On appeal, the Federal Circuit reversed.[[344]](#footnote-344) First, it clarified that written description (stressing possession) is a separate requirement from enablement.[[345]](#footnote-345) And “the level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.”[[346]](#footnote-346) This means that calling out an embodiment “in a definite way”[[347]](#footnote-347) may satisfy written description even where the patent’s specification focuses primarily on a different embodiment*.*[[348]](#footnote-348) Moreover, here, a slight reference to the ultrasonic embodiment distinguished this case from others where the parent application did not mention the questioned embodiment at all.[[349]](#footnote-349) Finally, though the inventor here admitted that enabling the claims for the ultrasonic embodiment required knowing more than what the claims themselves disclosed, this was to be expected for specifications and claims intended to be read by skilled artisans, and by no means suggested the inventor did not possess the embodiment.[[350]](#footnote-350) The court remanded for further factual development.

# SECTION 102

## On-Sale Bar

#### *Barry v. Medtronic, Inc.*, 914 F.3d 1310 (Fed. Cir. Jan. 24, 2019)

In this appeal from the Eastern District of Texas, the Federal Circuit affirmed that a patent on methods for correcting spinal column anomalies was not on sale before the critical date.[[351]](#footnote-351)

The case concerned the ’358 and ’121 patents, which disclose methods of grabbing and simultaneously wrenching screws across multiple vertebrae into alignment.[[352]](#footnote-352) The critical date for these pre-AIA patents was December 30, 2003.[[353]](#footnote-353) After modifying prior-art devices,[[354]](#footnote-354) Dr. Barry completed three surgeries using prototypes from August-October 2003; only after a January 2004 follow-up for the third surgery, however, did Dr. Barry submit his documented method to a conference for presentation.[[355]](#footnote-355) The district court held the surgeries had not triggered § 102(b)’s on-sale bar.[[356]](#footnote-356)

On appeal, the Federal Circuit affirmed. The majority and dissent agreed that the patented invention had been the subject of a commercial sale when the surgeries were conducted.[[357]](#footnote-357) But the majority held that substantial evidence existed for the jury to find that the invention, even if on-sale, had not been “ready for patenting” as required under *Pfaff*[[358]](#footnote-358)—and that, in any case, an experimental use exception applied.[[359]](#footnote-359)

First, the invention was not “ready for patenting.” This prong is met either by an enabling description—which did not exist here—or by reduction to practice.[[360]](#footnote-360) A reduction to practice requires both (1) “perform[ing] a process that [meets] all the [claim] limitations and (2) determining that the invention would work for its intended purpose.”[[361]](#footnote-361) Here, the majority found that although Dr. Barry (1) had practiced all claim limitations during the 2003 surgeries,[[362]](#footnote-362) he (2) had not recognized they would achieve their intended purpose until after the third surgery’s follow-up appointment in January 2004, after the critical date.[[363]](#footnote-363) Mixing experimental use and “ready-for-patenting” considerations,[[364]](#footnote-364) the court reasoned this case was like the untested light pole assembly in *Manville*, or the untested pedestrian alert system in *Polara*; in those cases, though those inventions were practiced before the critical date, they were not then known to work for their intended purposes, and so were not then ready-for-patenting.[[365]](#footnote-365)

Second, the court suggested that even had the invention been ready for patenting at the time of sale, analyzing the *Clock Spring* factors showed the experimental use exception would have applied.[[366]](#footnote-366) The court clarified that so long as an inventor maintains control over his invention, she need not inform her customer that the product is experimental in order to benefit from the exception (that requirement does apply, however, where the inventor loses control).[[367]](#footnote-367)

Chief Judge Prost dissented.[[368]](#footnote-368) She would have held the invention claimed by the ’358 patent *prima facie* on-sale before the critical date.[[369]](#footnote-369) Her analysis also turned on the ready-for-patenting prong.[[370]](#footnote-370) She agreed with the majority that (1) Dr. Barry had practiced all claim limitations during the 2003 surgeries, but believed that (2) he came to appreciate that the invention achieved its purpose before the critical date, either upon completing the surgeries, or at the follow-ups to the first two surgeries (not at the third follow-up, the first to occur after the critical date).[[371]](#footnote-371) Given the claims’ preamble stated their purpose as “the amelioration of aberrant spinal column deviation conditions [that is, multiple conditions],” and given Dr. Barry had testified a physician can achieve “the correction [or amelioration] you are happy with” during the procedure, the purpose was thus achieved after the second surgery treating a unique condition.[[372]](#footnote-372) By contrast, the majority further credited Dr. Barry’s unsupported testimony that follow-ups were required to confirm the “amelioration.”[[373]](#footnote-373) Even were follow-ups necessary, however, Chief Judge Prost did not see how the follow-ups for the first two surgeries would not have sufficed.[[374]](#footnote-374)

Finally, Chief Judge Prost sought to clarify “our case law regarding the relationship among reduction to practice, an invention's intended purpose, and the experimental-use doctrine.”[[375]](#footnote-375) Under the majority’s resolution, “any consideration of whether a use was experimental would be superfluous,” because finding the inventor has not yet proven fitness for purpose would render the invention not ready for patenting and so not in need of any experimental exception.[[376]](#footnote-376) To restore meaning to the exception, Chief Judge Prost would allow an experimental exception even where an invention is ready for patenting; this would be accomplished by respecting

a subjective, expansive understanding of an invention's ‘intended purpose’—one that accommodates the good-faith, perfectionist inventor . . . . [In particular, Judge Prost would hold that] if an inventor's pre-critical-date sale or public use is to test an unclaimed or undescribed, yet inherent, feature of an invention (e.g., durability, safety), such testing may support the inventor's overall claim of experimental use and thereby avoid invalidity.[[377]](#footnote-377)

#### *Helsinn Healthcare S.A. v. Teva Pharms. USA, Inc.*, 139 S.Ct. 628 (Jan. 22, 2019).

The Supreme Court affirmed that the AIA’s on-sale bar includes so-called secret sales, sales that do not publicly disclose the details of the invention, just as did the pre-AIA on-sale bar under *Pfaff v. Wells Electronics, Inc.*[[378]](#footnote-378)

 Helsinn owned four patents[[379]](#footnote-379) directed to formulations of the drug palonosetron for reducing chemotherapy-induced nausea.[[380]](#footnote-380) The critical date for the on-sale bar was January 30, 2002.[[381]](#footnote-381) On April 6, 2001, MGI Pharma, Inc. contracted with Helsinn to purchase and distribute the formulations.[[382]](#footnote-382) The details of the transaction were made publicly available through SEC filings, but the filings did not disclose the specific dosage for the formulations.[[383]](#footnote-383)

Helsinn sued Teva, alleging that Teva’s ANDA infringed the patents-in-suit. The trial court held that the patents were not invalid under the on-sale bar.[[384]](#footnote-384) For the patent governed by the AIA, the court held that there was no commercial offer for sale because the AIA changed the meaning of the on-sale bar to require the sale to publicly disclose the details of the invention.[[385]](#footnote-385) The Federal Circuit rejected the trial court’s interpretation of the AIA on-sale bar.

The Supreme Court granted certiorari on the question whether the America Invents Act, by changing language in § 102, materially changed the standard for the on-sale bar to patentability.[[386]](#footnote-386) Writing for a unanimous court, Justice Thomas held it did not.[[387]](#footnote-387) “[A]n inventor's sale of an invention to a third party who is obligated to keep the invention confidential qualifies as prior art for purposes of determining the patentability of the invention.”[[388]](#footnote-388) Affirming the Federal Circuit, the Supreme Court reasoned that “[t]he addition of ‘or otherwise available to the public’ [in the AIA’s restatement of § 102] is simply not enough of a change for us to conclude that Congress intended to alter the meaning of the reenacted term ‘on sale.’”[[389]](#footnote-389) Congress would not have overturned substantial precedent by subtly relying on the “associated-words canon” to imply a new limit to “on sale” stemming from this mere “catchall” phrase.[[390]](#footnote-390)

# OBVIOUSNESS

#### *Airbus S.A.S. v. Firepass Corp.*, 941 F.3d 1374 (Fed. Cir. Nov. 4, 2019)

In this appeal from the Patent Trial and Appeal Board (PTAB), the Federal Circuit vacated and remanded, holding the PTAB erred by not considering evidence Airbus argued linked the claims to the prior art.[[391]](#footnote-391)

Firepass’s ‘752 patent claims a fire prevention and extinguishing system that uses breathable air.[[392]](#footnote-392) The patent discloses fire may be suppressed while maintaining human-breathable air by reducing the concentration of oxygen in the air (“hypoxic air”) while maintaining air pressure (“normbaric”).[[393]](#footnote-393) Enclosed facilities may adjust the air by using a “hypoxic generator” or “any oxygen extraction” device.[[394]](#footnote-394)

An asserted prior reference, the ‘652 patent (Kotliar), has the same named inventor and “discloses equipment for providing hypoxic air in an enclosed area for the purposes of athletic training or therapy.”[[395]](#footnote-395) Kotliar discloses a system using a “hypoxicator” that reduces the concentration of oxygen in the air in an enclosed space.[[396]](#footnote-396)

 Airbus asserted four further references that allegedly make the ‘752 patent’s claimed invention obvious when combined with Kotliar: 1) Gustafsson, a study of how prolonged exposure to allegedly “fire retardant atmosphere” of normbaric hypoxic air; 2) the 1167 Report, a U.S. navy report on health hazards of flame-suppressant atmospheres, included hypoxic air repressurized with nitrogen; 3) Luria, a similar report focusing on vision performance; and 4) the ‘514 patent (Carhart), which is directed to “a system and method of adding nitrogen under pressure to a confined area including a habitable atmosphere to suppress a fire.”[[397]](#footnote-397)

 The PTAB held Kotliar was not an analogous art for the ‘752 patent.[[398]](#footnote-398) A reference is analogous prior art for purposes of an obviousness determination if it is either, 1) “from the same field of endeavor” or 2) “reasonably pertinent to the particular problem.”[[399]](#footnote-399) The PTAB concluded Kotliar and the ‘752 patent were not from the same field of endeavor: Kotliar’s field is athletic training, while the ‘752 patent’s field is fire suppression.[[400]](#footnote-400) The PTAB also concluded Kotliar was not reasonably pertinent because there was no provided connection between Kotliar and the problem of fire suppression.[[401]](#footnote-401) Because the patent examiner had not specifically cited the references, the PTAB refused to consider Airbus’s four asserted references.[[402]](#footnote-402)

 The Federal Circuit vacated and remanded. The Court held the PTAB had reasonably applied the field of endeavor test.[[403]](#footnote-403) However, the Court held the PTAB erred by not considering Airbus’s four asserted references.[[404]](#footnote-404) “[T]he reasonably pertinent inquiry may consider where an ordinarily skilled artisan would reasonably look … in seeking to address the problem confronted by the inventor.”[[405]](#footnote-405) Thus, “a reasonable factfinder should consider record evidence cited by the parties to demonstrate the knowledge and perspective of a person of ordinary skill in the art at the time of the invention.”[[406]](#footnote-406) The four references are relevant to the question of whether someone skilled in the art of fire prevention would have “reasonably consulted references relating to normbaric hypopoxic atmospheres” when considering the problem addressed by the ‘752 patent.[[407]](#footnote-407) Therefore, the PTAB should have considered those references in its analysis even though they were not specifically cited by the patent examiner.[[408]](#footnote-408)

#### *OSI Pharm., LLC v. Apotex Inc.,* 939 F.3d 1375 (Fed. Cir. Oct. 4, 2019)

 In this appeal from the Patent Trial and Appeal Board (PTAB), the Federal Circuit reversed, holding the claimed method for using a drug as a cancer treatment was not obvious from combining references in the prior art.[[409]](#footnote-409)

 Osi’s ‘221 patent claims methods of producing the drug erlotinib and using it as a treatment for non-small cell lung cancer (NSCLC).[[410]](#footnote-410) The PTAB concluded the patent’s claims involving how to use the drug would have been obvious after considering three references.[[411]](#footnote-411)

 First, Schnur is a patent relating to a class of compounds which could be used to treat various conditions, including cancers.[[412]](#footnote-412) Schnur lists erlotinib among the 105 compounds it discloses and lists lung cancer among the various conditions the compounds could treat.[[413]](#footnote-413) Schnur, however, “does not discuss NSCLC.”[[414]](#footnote-414)

Second, the Gibbs reference is a review article about “signaling mechanisms in the cell and how they are associated with tumor malignancy” that “discusses the data of over thirty published research studies, including one discussing erlotinib.”[[415]](#footnote-415) However, the studies cited in Gibbs did not include data on erlotinib as a NSCLC treatment or suggest it could be used as one.[[416]](#footnote-416)

Finally, OSI’s 10-K is a form the company must file to the SEC every year that includes “information on OSI’s finances, product development, research, competition, and manufacturing.”[[417]](#footnote-417) OSI’s 10-K for 1998 stated erlotinib was beginning Phase II clinical trials in cancer patients.[[418]](#footnote-418) Furthermore, the form mentioned NSCLC as a type of cancer erlotinib targets.[[419]](#footnote-419)

The PTAB concluded the ‘221 patent’s claims for a method of using erlotinib to treat NSCLC were obvious and unpatentable.[[420]](#footnote-420) Combining Schnur with either the information in Gibbs or the disclosures about erlotinib in OSI’s 10-K would be enough for a person of ordinary skill in the art create the invention with a reasonable expectation of success.[[421]](#footnote-421)

The Federal Circuit reversed.[[422]](#footnote-422) The court held the PTAB had erred in its interpretation of the references because they “do not disclose any data or other information about erlotinib’s efficacy in treating NSCLC.”[[423]](#footnote-423) Just by combining the asserted references, the court concluded a person ordinarily skilled in the art would not have reasonably expected success in using erlotinib to treat NSCLC, especially with NSCLC treatments being “highly unpredictable with an over 99.5% rate of failure for drugs entering Phase II clinical studies.”[[424]](#footnote-424) The court went on to say, however, that it was not holding that successful human trials were always required to show a reasonable expectation of success.

#### *Endo Pharms. Inc. v. Actavis LLC*, 922 F.3d 1365 (Fed. Cir. May 3, 2019)

In this appeal from the District Court of Delaware, the Federal Circuit affirmed that the patent at issue was not obvious because the ordinarily skilled artisan would not have had reasonable expectation of success in combining prior art.[[425]](#footnote-425)

The case concerned the ’779 patent, licensed by Endo and asserted against Actavis, disclosing processes for preparing highly pure morphinan compounds used in pain relief.[[426]](#footnote-426) Using morphinan compounds for pain relief was well known (including oxymorphone and oxycodone), yet prior art failed to produce them without impurities, specifically “ABUK,” or “-unsaturated keton intermediate compounds.”[[427]](#footnote-427) Three references failed to render obvious the purifying technique the ’779 patent disclosed. The Weiss reference taught purifying morphinan compounds through catalytic hydrogenation; but not only did Weiss fail to specify conditions critical to achieving this outcome, it acknowledged that its imperfect process created diols that could revert to ABUKs (in particular, while oxycodone diol was not produced readily through this process, oxymorphone diol and so oxymorphone ABUK was).[[428]](#footnote-428) The Chapman reference taught a process for reducing oxycodone diol to prevent reversion to oxycodone ABUK — but this process failed to achieve outcomes as pure and as quickly as those the ’779 patent enabled, its long duration caused degradation of the desired compound, and it did not contemplate its use for oxymorphone diol.[[429]](#footnote-429) A third reference, Rapoport, taught adding sulfur to assist in separating and removing up to 75% of oxymorphone impurities — a smaller share than what the ’779 patent accomplished, and again at the expense of degrading the desired compound.[[430]](#footnote-430) Finally, in a fourth “reference” of sorts, the U.S. Food and Drug Administration told drugmakers that oxymorphone ABUK levels would need to be held within 10 ppm.[[431]](#footnote-431)

The district court determined that a PHOSITA would not have had a reasonable expectation of success in combining any of these references to create the ’779 process.[[432]](#footnote-432) Weiss’s troubling byproduct was oxymorphone diol while Chapman’s solution to diols was believed to be specific to oxycodone diol—and even then it was too slow to be viable.[[433]](#footnote-433) And much the same was true for combining Weiss and Rapoport: Rapoport failed to suggest its process could remove diols without damaging the desired compound.[[434]](#footnote-434) Finally, the FDA communications “recite[d] a goal without teaching how the goal [wa]s attained,” — and even if the FDA motivated solving the problem, the FDA did nothing to encourage Weiss, Chapman, and Rapoport to be viewed together as a solution.[[435]](#footnote-435) The FDA communications may have provided motivation, but they did not promise success. Skilled artisans viewed the 10 ppm goal as “shocking” in light of the purification then possible.[[436]](#footnote-436)

On appeal, the Federal Circuit affirmed, reciting the reasoning of the lower court. Actavis argued that the lower court had used an incorrect (and heightened) standard of reasonable expectation of success because it had appeared to put weight on the finding that Chapman did not show “a definitive solution” to the problem, yet the Federal Circuit found from context that the lower court based its finding on more than this.[[437]](#footnote-437)

Judge Stoll dissented.[[438]](#footnote-438) Judge Stoll agreed with Actavis: the lower court had “erred by imposing a requirement that a reference must teach how to solve a problem to provide a motivation to combine, conflating enablement and reasonable expectation of success requirements with motivation.”[[439]](#footnote-439) The failure of other parties to combine the references did not mean that the first party to combine the reference was anything but ordinarily creative.[[440]](#footnote-440) Moreover, Judge Stoll stated that the FDA communications underscored the need for drugmakers to meet not just one but every claim limitation of the ’779 patent,[[441]](#footnote-441) thereby motivating artisans to combine the references and suggesting success was possible. The majority had said that the communications were irrelevant to the obviousness inquiry because they did not teach how the goal was attained.[[442]](#footnote-442) But “[i]f these communications also taught ‘how the goal is attained,’ they would anticipate the asserted claims—[and] we would have no need to address obviousness.”[[443]](#footnote-443)

#### *Grunenthal GMBH v. Alkem Labs. Lmtd.*, 919 F.3d 1333 (Fed. Cir. Mar. 28, 2019)

In this appeal from the District Court of New Jersey, the Federal Circuit affirmed that a patent claiming a polymorph of a known chemical compound was not invalid for obviousness.[[444]](#footnote-444) “Our decision today does not rule out the possibility that polymorph patents could be found obvious. But on the record here, the district court did not clearly err . . . .”[[445]](#footnote-445)

The case concerned the ’364 patent; that patent claimed the Form A polymorph of tapentadol hydrochloride and a method of treating pain or urinary incontinence.[[446]](#footnote-446) The prior-art ’737 patent described the process for synthesizing the same chemical compound in Form B, but did not describe the resulting crystal structure or its polymorphs.[[447]](#footnote-447) Another reference, Byrn, described a decision tree for finding polymorphs.[[448]](#footnote-448) The district court found that, even viewing the ’737 Form B compound in light of Byrn, obtaining Form A still would not have been obvious.[[449]](#footnote-449)

On appeal, the Federal Circuit affirmed.[[450]](#footnote-450) Alkem argued that the FDA had guided researchers to screen for polymorphs of pharmaceutical solids, and that the district court erred in ignoring this motivation to combine.[[451]](#footnote-451) But even so, Alkem had not met its burden as to a reasonable likelihood of success. “If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability”; here, one could not.[[452]](#footnote-452) First, there was no known or expected polymorph of tapentadol.[[453]](#footnote-453) Indeed, only 30% to 35% of all compounds have polymorphs.[[454]](#footnote-454) Second, obtaining a polymorph would have required correctly choosing from a “wide array of conditions.”[[455]](#footnote-455) Bryn suggested testing solvents from a non-exhaustive list of eight (which could also be combined in mixtures) and then “vary[ing] temperature, concentration, agitation, [and] pH.”[[456]](#footnote-456) An explicit obvious-to-try analysis also failed because of the “high number of possible choices.”[[457]](#footnote-457) Third, there was no conclusive evidence that following the ’737 reference to produce Form B would sometimes, let alone always, also produce Form A (thus the court said it would have rejected an inherent anticipation theory, though it was not properly before the court).[[458]](#footnote-458) For all those reasons, a skilled artisan would not have reasonably expected a polymorph screening of Form B to result in the claimed Form A.[[459]](#footnote-459)

#### Secondary Considerations

#### *Forest Labs., LLC v. SigmaPharm Labs., LLC*, 918 F.3d 928 (Fed. Cir. Mar. 14, 2019)

 In this appeal from the District of Delaware, the Federal Circuit vacated and remanded a finding of nonobviousness.[[460]](#footnote-460) The knowledge available to the ordinarily skilled artisan is decisive in the secondary factors analysis, even where the inventor’s superior knowledge allegedly results from information suppression that “may raise a variety of concerns . . . .”[[461]](#footnote-461)

 The case addressed Forest’s ’476 patent on an antipsychotic drug, sold under the brand Saphris, and formulated for taking sublingually or buccally (through the cheek).[[462]](#footnote-462) The prior art included oral formulations of the same drug as well as sublingual and buccal formulations of other drugs.[[463]](#footnote-463) The district court found the sublingual and buccal formulations of this drug not obvious.[[464]](#footnote-464)

 On appeal, the Federal Circuit vacated and remanded.[[465]](#footnote-465) An invention is obvious where “there is a reason, suggestion, or motivation in the prior art that would lead one of ordinary skill in the art to combine the references, and that would also suggest a reasonable likelihood of success.”[[466]](#footnote-466) These can be shown explicitly, or implicitly through assessing so-called secondary factors, including a long-felt need for the invention, or unexpected results.[[467]](#footnote-467) Here, the Federal Circuit held the district court had failed to make a finding as to whether a motivation to combine existed,[[468]](#footnote-468) yet it nonetheless examined the district court’s analysis of several secondary factors:

 **Long-Felt Need**: The Federal Circuit held the district court had not erred in finding there had been a long-felt need for an antipsychotic without debilitating side effects.[[469]](#footnote-469) An invention that resolves a long-felt need is usually a nonobvious one.[[470]](#footnote-470) Here, the side effects of prior-art drug formulations drove many patients off treatment.[[471]](#footnote-471) Even assuming Forest’s drug did not have better efficacy or compliance rates than prior alternatives—as SigmaPharm alleged—sufficient evidence existed for the district court to find Saphris did meet the need for reducing side effects.[[472]](#footnote-472)

 **Unexpected Results**: The Federal Circuit held the district court had erred, however, in finding that the sublingual formulation had unexpected results.[[473]](#footnote-473) Inventions having results that surprise ordinarily skilled artisans are usually not obvious.[[474]](#footnote-474) Here, the Federal Circuit reasoned that the researchers simultaneously discovered an unexpected problem and an unexpected solution to it,[[475]](#footnote-475) and so the net result of the invention was not surprising.[[476]](#footnote-476) Specifically, the researchers discovered that the prior-art oral formulation caused cardiotoxic problems, while the invented sublingual formulation did not.[[477]](#footnote-477) Had the ordinarily skilled artisan previously known of the cardiotoxic problems in the oral drug, the ability of a sublingual formulation to resolve those problems would have been unexpected.[[478]](#footnote-478) But such an artisan instead would have thought the oral drug did not have those problems, and so expected the sublingual drug to not have those problems. The Federal Circuit seemed to go further still when discussing motivation to combine: Even assuming Forest had special, prior knowledge about the cardiotoxicity of its prior-art oral drug (as SigmaPharm alleged), the obviousness analysis would not change because that analysis turns on the knowledge of the ordinarily skilled artisan.[[479]](#footnote-479) That artisan would have been motivated to try the sublingual formulation because she would not have anticipated the unexpected problem.

 While denying a patent in these circumstances might seem unfair, the Federal Circuit did not modify its obviousness analysis to remedy alleged inequities. Forest’s alleged suppression “may raise a variety of concerns,” but it does not change obviousness to the ordinarily skilled artisan.[[480]](#footnote-480)

 **Motivation to Combine**: Ultimately, the Federal Circuit vacated and remanded the case so that the trial court could make an explicit finding as to whether or not a motivation to combine existed.[[481]](#footnote-481) The district court had rejected a bioavailability concern as one motive (it appeared insufficiently founded),[[482]](#footnote-482) and the general need for having multiple treatment methods as another (it appeared insufficiently motivating).[[483]](#footnote-483) But the trial court had neither accepted nor rejected a third possible motivation to combine prior art: that schizophrenic patients had not complied with oral administration, and that they were likely to better comply with sublingual administration.[[484]](#footnote-484)

#### *Realtime Data, LLC v. Iancu*, 912 F.3d 1368 (Fed. Cir. Jan. 10, 2019)

 In this appeal from the Patent Trial and Appeal Board (PTAB), the Federal Circuit affirmed a finding of obviousness under § 103 where one of two offered references anticipated every element, holding that in this context the PTAB “was not required to make any finding regarding a motivation to combine . . . .” where only one reference was required.[[485]](#footnote-485)

 The matter concerned Realtime’s ’892, which discloses a system of lossless data compression using a “dictionary.”[[486]](#footnote-486) In that system, a given string can be defined by another shorter string in a “dictionary”; when compressing, any time the given string appears in the input it is replaced by the shorter string from the dictionary (which can be defined as the compression occurs); when decompressing, the reverse occurs.[[487]](#footnote-487) HP petitioned for *inter partes* review (IPR), alleging that several of the ’892 claims were obvious over O’Brien in view of Nelson (and that other claims, not contested on appeal, were obvious in further view of Welch).[[488]](#footnote-488) The parties focused on the element “maintaining a dictionary.” “HP relied on Nelson simply to demonstrate that . . . the string compression disclosed in O'Brien was, in fact, a type of dictionary encoder,” and “argued *in the alternative* that Nelson disclosed some of the elements in the claims at issue.”[[489]](#footnote-489) But Realtime conceded that O’Brien disclosed a dictionary encoder.[[490]](#footnote-490) Finding this and all other elements therefore present in O’Brien, the PTAB found the ’892 patent obvious over O’Brien alone.[[491]](#footnote-491)

 On appeal, the Federal Circuit affirmed. “[A] disclosure that anticipates under § 102 also renders the claim invalid under § 103, for ‘anticipation is the epitome of obviousness.’”[[492]](#footnote-492) Here, as O’Brien anticipated every element of the ’892 claims, the PTAB rightly found those claims obvious over O’Brien.[[493]](#footnote-493) Moreover, “the Board was not required to make any finding regarding a motivation to combine” O’Brien with Nelson.[[494]](#footnote-494) While normally a motivation to combine is required where multiple references are raised to show obviousness,[[495]](#footnote-495) here the Nelson reference was raised to support a point that Realtime conceded (and otherwise to argue in the alternative, as proved unnecessary).[[496]](#footnote-496)

For good measure, the court noted that, had both references been necessary, a motivation to combine existed here.[[497]](#footnote-497)

# CLAIM CONSTRUCTION

#### *MTD Prod. Inc. v. Iancu*, 933 F.3d 1336 (Fed. Cir. August 12, 2019)

 In this appeal from the Patent Trial and Appeal Board (“PTAB”), the Federal Circuit vacated and remanded an obviousness finding because the PTAB misinterpreted a means-plus-function term in the claim.[[498]](#footnote-498)

 MTD’s ‘458 patent claimed a “steering and driving system for zero turn radius (“ZTR”) vehicles.[[499]](#footnote-499) Independent claims of the patent used the term “mechanical control assembly.”[[500]](#footnote-500) In *inter partes* review (“IPR”), MTD argued “mechanical control assembly” was a means-plus-function term that was not commonly used and did not represent any specifics structure for someone ordinarily skilled in the art.[[501]](#footnote-501) However, the PTAB concluded “mechanical control assembly” did denote structure in the context of the ‘458 patent because the specification described the structure of the ZTR assembly.[[502]](#footnote-502) The PTAB was particularly persuaded by the patent’s prosecution history, in which MTD “asserted the claims recite ‘a mechanical control assembly that is structurally different from what [the asserted prior art] discloses.’”[[503]](#footnote-503) The PTAB construed “mechanical control assembly” as a structural limitation and then found the patent invalid for being obvious.[[504]](#footnote-504)

 On appeal, the Federal Circuit vacated and remanded.[[505]](#footnote-505) The court disagreed with the PTAB, concluding the “specification does not demonstrate that the patentee intended to act as its own lexicographer and define the nonce term ‘mechanical control assembly’ as the ‘ZTR control assembly’ of the preferred embodiment.” [[506]](#footnote-506) The court also disagreed that MTD’s statements in the prosecution history disclaimed a “means-plus-function” interpretation.[[507]](#footnote-507) MTD did not make those statements in the context of § 112.[[508]](#footnote-508) “Moreover, stating that the limitation connotes structure and has weight is not inconsistent with claiming in means-plus-function format since means-plus-function limitations connote structure … and have weight.”[[509]](#footnote-509)

#### *Ajinomoto Co. v. ITC,* 932 F.3d 1342 (Fed. Cir. August 6, 2019)

 In a *de novo* review of an International Trade Commission (“ITC”) patent infringement decision, the Federal Circuit affirmed both the ITC’s construction of a disputed term and that the claim was valid.[[510]](#footnote-510)

 Ajinomoto’s ‘655 patent “claims *E. coli* bacteria that have been genetically engineered to increase their production of aromatic L-amino acids, such as L-tryptophan, during fermentation, as well as methods of producing aromatic L-amino acids using such bacteria.”[[511]](#footnote-511) The patent involves increasing the activity of *E. coli*’s yddG gene, with the relevant claim reciting “replacing the native promoter … with a more potent promoter.”[[512]](#footnote-512)

Ajinomoto filed a complaint against CJ CheilJedang (“CJ”) for using *E. coli* strains allegedly claimed in the ‘655 patent to produce L-tryptophan.[[513]](#footnote-513) These strains included “earlier strains” that used the native yddG promoter “changed through chemical mutagenesis, resulting in a stronger promoter” and “later strains,” which had two copies of the yddG gene, one with the native promoter and one with two other promoters.[[514]](#footnote-514) The ITC construed the phrase “replacing the native promoter with a more potent promoter” to mean removing the native promoter and replacing it with one from a different gene.[[515]](#footnote-515) Thus, the ITC concluded CJ’s “earlier strains” of *E. coli* did not infringe the ‘655 patent, but the “later strains” did.[[516]](#footnote-516) In the course of determining infringement by the later strains, the ITC also found the ‘655 patent provided an adequate description for a “more potent promoter.”[[517]](#footnote-517) Both parties appealed.

 The Federal Circuit affirmed the ITC’s construction of the phrase “replacing the native promoter with a more potent promoter” and affirmed the non-infringement finding.[[518]](#footnote-518) “[The phrase] suggests, in ordinary parlance, an operation at the level of the entire promoter as a unit, not at the level of a single nucleotide that is just one small component of the promoter.”[[519]](#footnote-519) The use of the word “substitution” in an example in the specification and the patent’s prosecution history, where the applicants changed “alteration” to “replacing” further supported this conclusion.[[520]](#footnote-520)

 The Federal Circuit also affirmed the ITC’s decision of disputed claim included an adequate written description for “a more potent promoter”.[[521]](#footnote-521) The patent disclosed four examples of such promoters and research cited by the ITC indicated “a skilled artisan could make relatively predictable changes to the native promoter to arrive at a more potent promoter.”[[522]](#footnote-522)

#### *Sony Corp. v. Iancu*, 924 F.3d 1235 (Fed. Cir. May 22, 2019)

In this appeal from the Patent Trial and Appeal Board (“PTAB”), the Federal Circuit vacated and remanded the claim construction that had given rise to an obviousness finding.[[523]](#footnote-523)

The ’676 patent was directed to “an information reproducing device for reproducing an information recording medium in which audio data of plural channels are multiplexedly recorded.”[[524]](#footnote-524) In *inter partes* review (“IPR”), Sony argued that the “reproducing means” limitation was implemented by computer software and so requires, under *Aristocrat Techs.*, an implementing algorithm more specific than a general microprocessor.[[525]](#footnote-525) Constructing the “reproducing means” term, the PTAB concluded the limitation was a means-plus-function claim, where the structure was “a controller and a synthesizer” — not a computer requiring an algorithm.[[526]](#footnote-526) (On this construction, however, the claim was obvious.)

On appeal, the Federal Circuit disagreed. “[N]ot bound by the parties’ arguments as to claim construction,” the court held that Sony’s argument during IPR was correct.[[527]](#footnote-527) The parties had not argued this point on appeal. Both had accepted the claim as a means-plus-function claim concerning “reproducing the audio data of the channel designated by the default value stored in the storing means.”[[528]](#footnote-528) And both had viewed the structure as hardware-implemented, not software-implemented.[[529]](#footnote-529) The court remanded to the PTAB to reevaluate obviousness in this light.

(Judge Newman dissented on a different basis, reasoning that the expiration of the patent mooted the controversy and destroyed jurisdiction.[[530]](#footnote-530))

#### *BTG Int’l Ltd. v. Amneal Pharms. LLC*, 923 F.3d 1063 (Fed. Cir. May 14, 2019)

In this appeal of decisions consolidated from the District of New Jersey and the Patent Trial and Appeal Board (“PTAB”), the Federal Circuit affirmed the PTAB’s construction of “method of treatment” (and its resulting finding of obviousness, not detailed here).[[531]](#footnote-531)

The case concerned BTG’s ’438 patent covering a “method of treatment of prostrate cancer.”[[532]](#footnote-532) The method comprised using effective amounts of prednisone and of abiraterone acetate or a salt thereof.[[533]](#footnote-533) BTG contended that Anneal’s proposed drug would infringe; three other parties were granted petitions for *inter partes* review. [[534]](#footnote-534) To decide whether an ordinarily skilled artisan would have found it obvious to use prednisone as a cancer “treatment,”[[535]](#footnote-535) the Patent Trial and Appeal Board (“PTAB”) first construed “treatment.” BTG argued that the claims narrowly covered prednisone as a “treatment” having an “anti-cancer effect.”[[536]](#footnote-536) But the PTAB construed “treatment” as also “includ[ing] the eradication, removal, modification, management or control of a tumor.” [[537]](#footnote-537) (This led to an obviousness finding.)

On appeal, the Federal Circuit affirmed.[[538]](#footnote-538) Beginning with the patent’s language, the court noted that the specification defined “therapeutic agent” as either “an anti-cancer agent *or* a steroid,”[[539]](#footnote-539) and noted that prednisone was both an anti-cancer agent and a steroid. This made clear that in the language of the patent one could “treat” cancer by “by having anti-cancer effects or by producing familiar steroid effects of palliation and the reduction of [the abiraterone’s] side effects.”[[540]](#footnote-540) The prosecution history provided further support. The Tannock reference had stated that the “goal of treatment is palliation,” and the ’438 patent’s validity rested not on having different goals (anti-cancer only) but on having a different, unexpected combination of prednisone with another anti-cancer agent.[[541]](#footnote-541) As a result, the claims “cover[ed] a therapy in which abiraterone has an anti-cancer effect, while prednisone either has its own anti-cancer effect or has a palliative/side-effect reduction effect.” [[542]](#footnote-542) (The obviousness finding was affirmed.)

#### *Amgen Inc. v. Sandoz Inc*, 923 F.3d 1023 (Fed. Cir. May 8, 2019)

In this appeal from the Northern District of California, the Federal Circuit affirmed the construction that two steps in a claimed process were not infringed literally or under the doctrine of equivalents by a process that used one step,[[543]](#footnote-543) and that a claim limited by its preamble to treating diseases was not infringed by other uses.[[544]](#footnote-544)

 The case concerned patented biologics used in treating white blood cell deficiencies resulting from chemotherapy.[[545]](#footnote-545) Sandoz’s production and use of its patented biosimilars allegedly infringed Amgen’s patents — specifically the ’878 patent related to purifying the biologic protein of interest, and the ’427 patent related to using the biologic to mobilize stem cells before chemotherapy.[[546]](#footnote-546) As to the ’878 patent, the district court found that Sandoz’s purifying process simultaneously performed washing and elution, whereas Amgen’s patent claimed only the process wherein washing is first performed and then elution is performed.[[547]](#footnote-547) This failed to infringe literally or under the doctrine of equivalents.[[548]](#footnote-548) As to the ’427 patent, the district court found that Amgen’s patent was limited to “disease treating-effective amount[s],” whereas Sandoz had used only an amount of the biologic sufficient to mobilize stem cells without treating a disease.[[549]](#footnote-549)

On appeal, the Federal Circuit affirmed both constructions. For the ’878 patent, “the claim language logically requires that the process steps, lettered (a) through (g), be performed in sequence.”[[550]](#footnote-550) Further, the specification characterized the two steps as occurring in two different solutions, logically requiring that Amgen’s two steps could not be completed simultaneously. [[551]](#footnote-551) Thus rejecting literal infringement, the court turned to the doctrine of equivalents. It affirmed that “Sandoz’s one-step, one-solution process does not function in the same way as the claimed [multi-step, multi-solution] process.” [[552]](#footnote-552) “The doctrine of equivalents applies only in exceptional cases and is not ‘simply the second prong of every infringement charge, regularly available to extend protection beyond the scope of the claims.’”[[553]](#footnote-553) As for the ’427 patent, the court affirmed the district court’s construction. The preamble “disease treating-effective amount” was a limitation.[[554]](#footnote-554) “Had Amgen simply wanted to claim a method of mobilizing stem cells, in any context, it could have done so.”[[555]](#footnote-555) The court’s decision appeared to rest on the difference in uses (treating disease versus mobilizing cells), and not only on the difference in amounts effective for each use — suggesting an appetite for reading preamble limitations broadly.

#### *Du Pont v. Unifrax I LLC*, No. 2017-2575, 2019 WL 1646491 (Fed. Cir. Apr. 17, 2019)

 In this appeal from the District of Delaware, the Federal Circuit affirmed the district court’s construction that the claim limitation “100% by weight”[[556]](#footnote-556) permitted some residual dispersant.

 The dispute concerned the ’926 patent, a continuation-in-part of the ’027 patent, which disclosed a flame barrier laminate for thermal and acoustic insulation in airplane fuselages.[[557]](#footnote-557) The multilayer laminate comprised in part “an inorganic refractory layer,” in turn comprising “platelets in an amount of *100% by weight* with a dry areal weight of 15 to 50 gsm and a residual moisture content of no greater than 10 percent by weight.” [[558]](#footnote-558) Du Pont urged a construction that permitted some residual dispersant, while the allegedly infringing Unifrax urged a plain-language construction permitting none.[[559]](#footnote-559) The district court constructed the claim as permitting some dispersant.[[560]](#footnote-560)

 The Federal Circuit affirmed.[[561]](#footnote-561) Claim construction “give[s] meaning to the claim terms according to how a person of ordinary skill in the art would have understood them at the time of the invention in light of the entire patent . . . .”[[562]](#footnote-562)

**Claim Language**: The patent claimed refractory layers having “100% by weight . . . and a residual moisture content of no greater than 10 percent by weight.”[[563]](#footnote-563) Because a sum of components greater than 100% would be nonsensical, the “100% by weight” limitation could not mean that refractory layers having material besides platelets were necessarily disclaimed.[[564]](#footnote-564)

**Specification of Parent Application**: The Federal Circuit also held the district court had correctly treated the parent application’s specification as intrinsic to the continuation-in-part.[[565]](#footnote-565) “When a parent application includes statements involving ‘common subject matter’ with the terms at issue”—and in particular when the parent is also cited as a prior-art reference for the child—“those statements are relevant to construction of the terms in the child patent.”[[566]](#footnote-566) The parent specification stated that one embodiment “contains 100% platelets i.e. there is no carrier material . . . . However, there may be some residual dispersant arising from incomplete drying of the platelet dispersion.”[[567]](#footnote-567) This showed there was a distinction between carrier and residual dispersant that made the claim make sense.[[568]](#footnote-568)

**Prosecution History**: The district court also did not err in finding Du Pont had not disclaimed layers containing residual dispersant when working to overcome a prior art reference, Tompkins.[[569]](#footnote-569) Tompkins taught a “70% by weight platelet concentration secured to a fiber carrier.”[[570]](#footnote-570) But this only underscored that the patent applicant’s changes used percentages in the same way, as a measure relative to the concentration of the carrier.[[571]](#footnote-571)

**Dissent**: Judge O’Malley dissented.[[572]](#footnote-572) She would have read the layer as comprising 100% platelets when dry, and up to 10% moisture when still wet.[[573]](#footnote-573) (Judge O’Malley also believed that residual dispersant might be okay—so long as that dispersant left before the layer dried.[[574]](#footnote-574)) Among other evidence, she pointed to an exchange at oral argument:

The Court: “[T]he ‘100% by weight of platelets,’ is that ‘100% by weight,’ itself, 15 to 50 gsm?” DuPont: “Yes. The dry aerial [sic] weight.”  . . . The Court: “And that 10% by weight is relative to what?” DuPont: “To the total weight of the layer when it’s not dry. . . . [T]he dry weight would be without the water, and the residual moisture is with.”[[575]](#footnote-575)

Moreover, though one example in the specification did not have 100% platelets, the language as amended during prosecution could no longer encompass that example—and final claim language controls.[[576]](#footnote-576) Meanwhile, all other twenty-four examples in the specification had 100% by weight platelets with no residual dispersants.[[577]](#footnote-577)

 Furthermore, Judge O’Malley reasoned that the majority’s reading of the parent’s specification into the child’s claims was inappropriate.[[578]](#footnote-578) Even assuming the two should be read together, the specification lacked the clear intent necessary to be lexicography, and so the plain language in the child’s claims should control over the supposed definition in the parent’s specification.[[579]](#footnote-579)

#### *Continental Circuits LLC v. Intel Corp.*, 915 F.3d 788 (Fed. Cir. Feb. 8, 2019)

In this appeal from the District of Arizona, the Federal Circuit held the trial court had erred in construing the claims.[[580]](#footnote-580)

The case concerned four patents disclosing “a multilayer electric device . . . having a tooth structure” and methods for making it.[[581]](#footnote-581) At issue was whether some claim limitations including “surface,” “removal,” and “etching” should themselves be limited to apply only to a repeated desmear process.[[582]](#footnote-582) The district court found they should be so limited, stressing that this process was cited in response to the patent examiner’s indefiniteness and written description rejections during prosecution.[[583]](#footnote-583)

On appeal, the Federal Circuit held this was error.[[584]](#footnote-584) The court stressed that “because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.”[[585]](#footnote-585) Stepping back, the claims did not mention a “repeated desmear process.”[[586]](#footnote-586) And the specification did not disclaim other preparations, instead explaining only “*[o]ne technique* for forming the teeth . . . .”[[587]](#footnote-587) (Even disapproving other processes was not tantamount to disavowing them.[[588]](#footnote-588)) Returning to the prosecution history, here too there was a lack of clear disclaiming.[[589]](#footnote-589) The response to the examiner merely stated “*a technique* which forms the teeth,” presumably among others.[[590]](#footnote-590)

Given the parties had stipulated to infringement based on the erroneous construction, the Federal Circuit vacated and remanded.[[591]](#footnote-591)

# INFRINGEMENT

## Joint Infringement

#### *Omega Patents, LLC v. CalAmp Corp.*, No. 2018-1309, 2019 WL 1510676 (Fed. Cir. Apr. 8, 2019)

 In this appeal from the Middle District of Florida, the Federal Circuit variously affirmed, reversed, vacated, and remanded claims as to direct and indirect infringement of patents, as well as to the damages thereby resulting.[[592]](#footnote-592) (For a summary of the holdings on damages in this opinion, see the remedies section of this document.)

 The case concerned several of Omega’s device and system patents for remotely controlling vehicles; this system depended on devices communicating with a given vehicle’s data bus and with remote receivers.[[593]](#footnote-593) CalAmp’s allegedly infringing devices and systems—used for fleet monitoring and management—*sometimes* communicated with a given vehicle’s data bus and always transmitted information remotely for analysis.[[594]](#footnote-594) At trial, the jury found for Omega on direct and indirect willful infringement and treble damages; the judge denied CalAmp’s motion for judgment notwithstanding that verdict.[[595]](#footnote-595)

 On appeal, the Federal Circuit dissected the case and remanded much of it.[[596]](#footnote-596) In particular, the court declined to find direct infringement where a third-party provided some of the allegedly infringing system and an *Akamai-*style divided infringement theory apparently was not asserted. The system claims in the ’876 and ’885 patents required “a transmitter and a receiver for receiving *signals from said transmitter*”; for CalAmp’s systems, however, the alleged receiver was a cell tower that CalAmp was not alleged to provide.[[597]](#footnote-597) This destroyed a direct infringement theory. The Federal Circuit (and apparently the parties) did not consider an *Akamai*-style theory of divided direct infringement.[[598]](#footnote-598)

On an induced infringement, theory, however, even though the jury could appropriately have found underlying direct infringement on the system claims by CalAmp’s customers,[[599]](#footnote-599) it could not have found the required mental state (knowledge of infringement) at CalAmp.[[600]](#footnote-600) The trial court wrongly excluded testimony from CalAmp’s senior director of business development and its general counsel as to whether at product launch they knew their customers would be infringing CalAmp’s patents.[[601]](#footnote-601) Hence, the court vacated and remanded.

## Doctrine of Equivalents

#### *Eli Lilly & Co. v. Hospira, Inc.*, 2019 WL 3756065, at \*1 (Fed. Cir. Aug. 9, 2019)

In this appeal from the Southern District of Indiana, the Federal Circuit reversed a finding of literal infringement but affirmed under the doctrine of equivalents.[[602]](#footnote-602) (Only the latter issue is addressed here.)

Prior art had identified that antifolates slow DNA and RNA synthesis and stymie cancers; antifolates, however, were also known to cause side effects.[[603]](#footnote-603) Lilly’s ’209 patent concerned the use of a particularly effective antifolate, pemetrexed disodium, together with a methylmalonic acid lowering agent and folic acid, which lessen the antifolate’s side effects without lessening its efficacy.[[604]](#footnote-604) When prosecuting the patent, Lilly distinguished particular antifolates disclosed by prior art, and yet the district court found that this did not preclude Lilly’s patent from potentially covering still other antifolates under the doctrine of equivalents.[[605]](#footnote-605) And, while Lilly cited the Akimoto patent, which covers a genus of thousands of antifolate compounds (and to which Lilly took a license), this citation to the genus did not preclude Lilly’s claim to a particularly fit specie and its equivalents.[[606]](#footnote-606) Lilly sued drug makers who proposed using as antifolates different pemetrexed salts, particularly pemetrexed ditromethamine.[[607]](#footnote-607) The district court rejected prosecution history estoppel and public-dedication defenses; it found the defendant’s drugs infringed because the “administration of pemetrexed ditromethamine is equivalent to the claim element ‘administration of pemetrexed disodium.”[[608]](#footnote-608)

On appeal, the Federal Circuit affirmed the result by applying the doctrine of equivalents.[[609]](#footnote-609) Addressing prosecution history estoppel first, the court stated that “a narrowing amendment is presumed to be a surrender of all equivalents within ‘the territory between the original claim and the amended claim,’ [and] the presumption is [only] overcome if the patentee can show the applicability of one of the few exceptions identified by the Supreme Court.”[[610]](#footnote-610) Lilly argued that “the rationale of its amendment ‘[bore] no more than a tangential relation to the equivalent in question,’” a recognized exception.[[611]](#footnote-611) The core question, then, was whether “Lilly’s amendment narrowing ‘an antifolate’ to ‘pemetrexed disodium’ was only tangential to pemetrexed ditromethamine, which is the accused compound.”[[612]](#footnote-612) Even though Lilly could have added one claim limitation to avoid the prior art without adding another limitation to exclude the equivalent at issue, the court reasoned that a rule precluding Lilly from claiming the excluded equivalent would be too “rigid” an interpretation of these equitable doctrines and would “eviscerate the tangentiality exception.”[[613]](#footnote-613) “The particular type of salt to which pemetrexed is complexed relates only tenuously to the reason for the narrowing amendment, which was to avoid” a reference using methotrexate, an entirely different antifolate, and “not to cede other, functionally identical, pemetrexed salts.”[[614]](#footnote-614) A competitor would not have been justified in assuming Lilly had surrendered other pemetrexed salts[[615]](#footnote-615) — indeed, that reading would have been “implausible.”[[616]](#footnote-616)

Turning to whether the equivalent was not claimed because of the disclosure-dedication rule, the court held that the ’209 patent did not disclose methods of treatment using pemetrexed ditromethamine, and so “could not have dedicated such a method to the public.”[[617]](#footnote-617) While the patent did reference Akimoto’s genus of antifolates, this “generic reference” did not enable a skilled artisan to “understand [any] unclaimed disclosed teaching[, such as related to the equivalent salts,] upon reading the written description.”[[618]](#footnote-618)

#### *Amgen Inc. v. Coherus Biosciences Inc.*, 931 F.3d 1154 (Fed. Cir. July 29, 2019)

In this appeal from the District of Delaware, the Federal Circuit affirmed dismissal for failure to state a claim because “prosecution history estoppel bars Amgen from succeeding on its infringement claim under the doctrine of equivalents.”[[619]](#footnote-619)

 Amgen’s ’707 patent taught a method for improving the production of biologic therapies by increasing the amount of biologic protein that could be captured during the purification stage without compromising the protein’s stability.[[620]](#footnote-620) During prosecution, the examiner objected that a skilled artisan could have developed Amgen’s approach by routinely optimizing the method previously explained by Holtz.[[621]](#footnote-621) To avoid the prior art, Amgen emphasized that Holtz had failed to disclose the use of any combination of salts, let alone the three specific pairs Amgen claimed; “merely adding [any given] second salt” would not do.[[622]](#footnote-622) Coherus’s later-developed biologic manufacturing process also used a salt combination, but not one of the specified, effective pairs.[[623]](#footnote-623) The district court found that because Amgen had specifically disclaimed other salt combinations during prosecution, Coherus’s combination did not infringe.[[624]](#footnote-624)

 On appeal, the Federal Circuit affirmed.[[625]](#footnote-625) While amendment-based estoppel did not apply, argument-based estoppel clearly did: “Amgen clearly and unmistakably surrendered unclaimed salt combinations during prosecution.”[[626]](#footnote-626) Amgen argued that its statements to the examiner about particular salt combinations were incidental to the distinctions that actually made the difference, but this argument was unavailing. The “particular combinations” argument was one of three arguments Amgen made in the alternative, and estoppel attaches to each alternative.[[627]](#footnote-627) Further, even though the examiner and the applicant had one last exchange before approval during which Amgen did not reiterate the “particular combinations” argument, this did not mean the argument was not still the basis for approval.[[628]](#footnote-628)

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# DEFENSES

## Claim and Issue Preclusion

#### *CFL Techs. LLC v. Osram Sylvania, Inc.*, No. 1:18-cv-01445-RGA, 2019 WL 2995815, at \*1 (D. Del. July 9, 2019).

 In this case from the District of Delaware, the court permitted claims to proceed involving patents that, when asserted against an earlier party and pre-*Therasense*, had been held unenforceable for inequitable conduct.[[629]](#footnote-629)

 The case concerned five expired patents pertaining to compact fluorescent light bulbs (“CFLs”).[[630]](#footnote-630) The plaintiff’s predecessor-in-interest had first asserted the patents in the early 2000s. Two of the five were then held unenforceable for inequitable conduct.[[631]](#footnote-631) The predecessor had also asserted patents against Wal-Mart; in this case, the court found a third patent of the five unenforceable for inequitable conduct.[[632]](#footnote-632) A co-plaintiff appealed from this latter case just as the Federal Circuit decided *Therasense, Inc. v. Becton, Dickinson & Co.*[[633]](#footnote-633); the Federal Circuit affirmed the district court’s finding.[[634]](#footnote-634) Finally, in the present case, the plaintiff asserted the five patents. The defendant moved to dismiss for failure to state a claim, citing claim preclusion, issue preclusion as to the patents’ enforceability, and failure to state a willfulness claim (the last not addressed here).[[635]](#footnote-635)

 The district court did not dismiss the claims. First, the claims were not precluded. On claim preclusion, regional circuit law dictates the elements of the claim preclusion test, and Federal Circuit law dictates whether one of those elements is satisfied: Are two infringement claims in fact the same action?[[636]](#footnote-636) Under that law, a new action is not the same “as a previous action if the [specific instances of the] accused products did not exist at the time of the previous suit.”[[637]](#footnote-637) This is true even if the style of products is similar or even the same.[[638]](#footnote-638) Here, because the alleged interference occurred after the earlier suits closed, this action was distinct.[[639]](#footnote-639) The *Kessler* doctrine did not bar the claims, either.[[640]](#footnote-640) That doctrine, about which the court spoke disapprovingly, protects a defendant who is found to be non-infringing in one suit from future suits along the same lines. But these defendants had never been adjudged non-infringing.[[641]](#footnote-641)

 The issue was not precluded, either; the underlying law had changed and now compelled a new result. On issue preclusion, the regional circuit law again determines the elements, and Federal Circuit law determines whether each is met in the patent context.[[642]](#footnote-642) Change in law is an exception to issue preclusion under Federal Circuit law.[[643]](#footnote-643) It applies when 1) governing law has changed, 2) the decision sought to be reopened was made under the old law, and 3) a different result would now be reached on the facts of the prior decision.[[644]](#footnote-644) Here, after these patents were held unenforceable for inequitable conduct, the Federal Circuit changed the inequitable conduct standard in *Therasense, Inc. v. Becton, Dickinson & Co.*[[645]](#footnote-645) All of the conduct deemed inequitable in the prior cases—specifically “(i) undisclosed litigation with Motorola, (ii) priority misclaims, (iii) incorrect small entity assertions, and (iv) undisclosed prior art” — would not have been found inequitable under today’s but-for materiality and “single most reasonable inference” of intent standards.[[646]](#footnote-646) This was true even if the problematic behaviors were taken not individually but together under a totality of the circumstances analysis.[[647]](#footnote-647)

 As a result, the plaintiff was not precluded from pursuing its infringement claims despite the fact that these very patents had previously been held unenforceable.[[648]](#footnote-648)

# REMEDIES

## Damages

#### *Omega Patents, LLC v. CalAmp Corp.*, No. 2018-1309, 2019 WL 1510676 (Fed. Cir. Apr. 8, 2019)

 In this appeal from the Middle District of Florida, the Federal Circuit variously affirmed, reversed, vacated, and remanded claims as to direct and indirect infringement of patents, as well as the damages thereby resulting.[[649]](#footnote-649) (For the infringement piece and additional case background, see the infringement section of this document.)

 On appeal, and in passing, the Federal Circuit held that a party cannot “use the answers to special questions as weapons for destroying the general verdict.”[[650]](#footnote-650) Here, the jury instructions—proposed by CalAmp—included written questions about direct infringement but not induced infringement.[[651]](#footnote-651) Nonetheless, the jury had been told that it must “find that the customers infringed in order to find CalAmp liable for inducement.”[[652]](#footnote-652) The jury had thus been properly instructed to award damages for induced infringement, and the general verdict on damages survived this sort of challenge.[[653]](#footnote-653)

However, the damages award did not survive another challenge: Because the one claim still held infringed was insufficient to sustain the full damages amount, the Federal Circuit vacated and ordered the trial court to reassess damages after reconsidering infringement.[[654]](#footnote-654)

#### *WesternGeco LLC v. Ion Geophysical Corp.*, 913 F.3d 1067 (Fed. Cir. Jan. 11, 2019)

 On remand from the Supreme Court,[[655]](#footnote-655) the Federal Circuit[[656]](#footnote-656) rejected ION’s attempt to reopen a settled reasonable royalty award and remanded to the district court the calculation of damages for lost profits.[[657]](#footnote-657) Four of the five claims that could have supported lost profits had been invalidated while the case was at the Supreme Court.[[658]](#footnote-658)

ION argued that the reasonable royalty award was never final because of the ongoing litigation and now deserved reconsideration because of the invalidations.[[659]](#footnote-659) But here, the parties had stipulated under Fed. R. Civ. P. 58 to the reasonable royalty award and only continued to contest the lost profits award.[[660]](#footnote-660) They had made this stipulation even after *inter partes* reviewdecisions in 2015 had found four claims unpatentable.[[661]](#footnote-661)

 Next, ION argued that no lost profits should be awarded because the parties were not competitors—a contention the district court had rejected in a motion for judgment as a matter of law.[[662]](#footnote-662) ION sells devices used in marine surveys, whereas WesternGeco sells only marine surveys using those devices (WesternGeco’s patent claims were directed to technology related to the devices).[[663]](#footnote-663) The court suggested that even if the relevant question were “whether the patent owner’s and the infringer’s *products* are adequate substitutes for consumers,” WesternGeco’s and ION’s devices “competed by performing the same types of functions for surveys” and adequate evidence supported the jury finding.[[664]](#footnote-664) However, the distinction between device and surveys using the device might present issues for apportionment, that is, the determination of lost profits attributable to infringement from the device and those attributable to other aspects of services (like operating the marine vessel).[[665]](#footnote-665) The court held that issue had been waived on appeal, though it could be opened in a new damages trial.[[666]](#footnote-666)

 ION also argued the lost profits should be set aside on the theory that where a jury has made a general award and one of the bases for that award is later invalidated, the entire award must be set aside.[[667]](#footnote-667) The court was not persuaded. It held that even if only one of several claims once shown to a jury as a basis for damages remains valid, so long as that claim was shown to the jury to be essential to those damages, then any error in instruction is harmless,[[668]](#footnote-668) and the entire award of lost profits can be sustained.[[669]](#footnote-669) [That seems self-evidently wrong, and inconsistent with the idea that every infringed claim is entitled to damages, but it is consistent with the Federal Circuit’s effort to preserve black box jury awards].

Such a showing had not been clearly made here, however. Multiple claims could have been construed as covering or not covering the generically described “lateral steering” that was necessary to perform the surveys.[[670]](#footnote-670) Accordingly, the Federal Circuit instructed the district court on remand to determine whether on this record “there was no dispute that the technology covered by [the sole remaining claim], independent of the technology covered by the now-invalid claims [including one on which the valid claim had depended], was required to perform the surveys at issue”; if so, the district court could sustain the awarded lost profits, and if not it could order a new trial on lost profits.[[671]](#footnote-671)

#### Attorneys Fees

#### *NantKwest, Inc. v. Iancu*, 898 F.3d 1177 (Fed. Cir. July 27, 2018) (en banc)

In this appeal from the Eastern District of Virginia, the Federal Circuit held that the Patent and Trademark Office (“PTO”) must pay its own attorney fees for appeals brought by applicants to district courts under § 145.[[672]](#footnote-672)

 At the PTO, an examiner found NantKwest’s method to treat cancer unpatentable as obvious, which the Patent Trial and Appeals Board affirmed.[[673]](#footnote-673) NantKwest appealed under § 145. Whereas appeals under § 141 review PTO records and decisions per the Administrative Procedure Act, appeals under § 145 are *de novo* inquiries that may use new evidence to challenge PTO decisions.[[674]](#footnote-674) In exchange for robust review, the applicant must pay “[a]ll the expenses” of both parties.[[675]](#footnote-675) At the § 145 appeal, the PTO won on summary judgment, then moved for expenses; for the first time in history, the PTO requested that attorney fees be included.[[676]](#footnote-676) The district court found attorney fees were not covered under § 145.[[677]](#footnote-677)

On appeal, a divided panel of the Federal Circuit reversed, but—voting *sua sponte* to rehear the matter *en banc*—a majority of the full court affirmed the district decision.[[678]](#footnote-678) The opinions can be read to turn first on whether a system wherein the appealing party always pays both sides’ attorneys’ fees contradicts the American Rule, and second, if so, whether Congress was sufficiently “clear and explicit” in drafting § 145 to create and permit such a system here.

On the first point, the *en banc* decision held that the American Rule is violated whenever a party does not pay its own legal fees. The American Rule that each litigant pays its own fees, win or lose, is a “bedrock principle” that “the Supreme Court has held . . . presumptively applies and any statutory deviations from it must be ‘specific and explicit.’”[[679]](#footnote-679) In contrast, the dissent (and the earlier panel’s majority) would have held that the American Rule is only broken when a statute requires the losing party to pay, as the Fourth Circuit had reasoned when interpreting a trademark statute in *Shammas*.[[680]](#footnote-680)

On the second point, given the American Rule applied and was violated, the Federal Circuit held that the statute did not meet the stringent “specific and explicit” standard to be a congressionally permitted exception. While no “magic words” are needed,[[681]](#footnote-681) the Supreme Court has rejected “statutory language that might, to a layperson, seem broad enough to cover attorneys’ fees . . . .”[[682]](#footnote-682) One permitted exception, for example, is a statute directing a court to “award[] to a prevailing party . . . fees and other expenses.”[[683]](#footnote-683) Here, the term “expenses” was held to be insufficiently explicit to cover “attorneys’ fees.” The majority supported this decision by drawing upon 170 years of understanding and practice,[[684]](#footnote-684) historic dictionaries,[[685]](#footnote-685) comparisons between this and other areas of the Patent Act,[[686]](#footnote-686) comparisons between this and other statutes (which again treat attorneys’ fees as distinct from expenses or else as a component of expenses deserving explicit mention),[[687]](#footnote-687) and other judicial decisions.[[688]](#footnote-688) It said the dissent’s reading of past decisions failed to appreciate distinguishing details,[[689]](#footnote-689) and that its reading of legislative history was not only inaccurate but inappropriate, given the standard requires clear intent on the statute’s face.[[690]](#footnote-690)

Finally, the majority rejected policy arguments that § 145 suits create costs that all patent applicants bear, determining these costs to be small and the fairness of allocating them better left to Congress, which recently rebuffed a § 145 repeal effort.[[691]](#footnote-691)

The Supreme Court granted certiorari on March 4, 2019. Oral argument was held in October 2019, and a decision is expected by June.

# PRACTICE AND PROCEDURE

## Forum Selection / Governing Law Clauses in License Agreements

#### *Dodocase VR, Inc. v. MerchSource, LLC*, No. 2018-1724, 2019 WL 1758481 (Fed. Cir. Apr. 18, 2019)

In this case from the Northern District of California, the Federal Circuit affirmed an injunction applying a licensing agreement’s forum selection clause to IPRs even though it was silent on that question and so enjoining proceedings at the Patent Trial and Appeal Board (“PTAB”).[[692]](#footnote-692)

Dodocase makes virtual reality headsets that MerchSource distributes, and the two entered a master licensing agreement (“MLA”) covering three patents.[[693]](#footnote-693) The MLA contained a forum selection clause requiring disputes be settled in courts located in San Francisco or Orange County.[[694]](#footnote-694) After the MLA was entered, MerchSource notified Dodocase it would cease royalty payments, now believing the patents invalid, as *MedImmune v. Genentech* gives it the right to do.[[695]](#footnote-695) It then filed *inter partes* review (“IPR”) and post-grant review (“PGR”) proceedings before the PTAB.[[696]](#footnote-696) Meanwhile, Dodocase brought this action before the district court, enjoining MerchSource’s breach.[[697]](#footnote-697)

On appeal, the Federal Circuit applied state contract law, here of California, according to the MLA’s governing law clause.[[698]](#footnote-698) The critical question in light of the contract’s language was whether PTAB petitions “constitute[d] a ‘dispute’ that ‘aris[es] out of or under” the MLA.”[[699]](#footnote-699) MerchSource argued that nothing about the PTAB proceedings depended on the MLA. But in *Texas Instruments*, the Federal Circuit had held that similar forum selection language “necessarily covers disputes concerning patent issues.”[[700]](#footnote-700) In that case, the clause covered ITC proceedings; in this case, the district court was right to view the clause as likely covering PTAB proceedings.[[701]](#footnote-701) The court made no mention of *Lear, Inc. v. Adkins* or *MedImmune v. Genentech*, which give a right to challenge patent validity outside the scope of a license.

## Venue

#### *Westech Aerosol Corp. v. 3M Co.*, 927 F.3d 1378 (Fed. Cir. July 5, 2019)

In this appeal from the Western District of Washington, the Federal Circuit affirmed dismissal for improper venue.[[702]](#footnote-702)

Westech sued 3M Co. and Northstar Chemical for infringement in the Western District of Washington.[[703]](#footnote-703) Attempting to create venue under 28 U.S.C. § 1400(b), Westech alleged conclusorily that 3M had sufficient sales presence to create “a regular and established” place of business in Western Washington; it failed to allege even that much about Northstar.[[704]](#footnote-704) Relying on the Supreme Court’s recent decision in *T.C. Heartland* and the Federal Circuit’s decision in *In re Cray*,[[705]](#footnote-705) the district court dismissed the action for improper venue.[[706]](#footnote-706)

On appeal, the Federal Circuit clarified that the plaintiff bears the burden of establishing venue,[[707]](#footnote-707) and that “venue under the patent statute is proper when the facts show that the defendant has a regular and established place of business physically located within the judicial district.”[[708]](#footnote-708) Here, “parrot[ing] the language of § 1400(b)” did not meet the plaintiff’s “burden to plead specific facts.”[[709]](#footnote-709) Dismissal was not in error.

#### *In re Google Inc.*, No. 2018-152, 2018 WL 5536478 (Fed. Cir. Oct. 29, 2018), *reh’g denied*, *In re Google Inc.*, 914 F.3d 1377 (Fed. Cir. Feb. 5, 2019)

**Panel Opinion**: In this petition for a writ of mandamus, the Federal Circuit declined to direct the Eastern District of Texas to dismiss or transfer the case for improper venue under 28 U.S.C. § 1400(b).[[710]](#footnote-710)

 SEVEN had asserted that Google “committed acts of infringement in this District and has a regular and established place of business in this District.”[[711]](#footnote-711) After discovery on venue, however, Google moved for dismissal under Federal Rule of Civil Procedure 12(b)(2) or transfer under 28 U.S.C. § 1406(a).[[712]](#footnote-712) The court first found that Google’s content-delivery Edge Network included servers housed at various Internet Service Providers in the district, and that (1) these constituted a place of business per *In Re Cray*.[[713]](#footnote-713) The court furthermore found that, even if Google’s infringement did not directly relate to that place of business, (2) venue remained proper because § 1400(b) does not require that the alleged misconduct directly relate to the place of business.[[714]](#footnote-714) Google petitioned for a writ of mandamus, objecting to points (1) and (2).[[715]](#footnote-715)

 Hearing the petition, the Federal Circuit evaluated each argument against the three prongs of a petition review: (i) whether other adequate means to attain relief exist, (ii) whether the right of issuance is “clear and indisputable,” and (iii) appropriateness.[[716]](#footnote-716) Addressing (1) whether servers constitute a place of business, the court reiterated that appeal upon final judgment is (i) typically adequate relief for wrongly denied § 1406 motions challenging § 1400(b) venue, and these circumstances were unexceptional.[[717]](#footnote-717) Furthermore, the right of issuance was (ii) not clear because Google failed to show the server question raised “basic, unsettled, recurring legal issues over which there is considerable litigation producing disparate results.”[[718]](#footnote-718). Accordingly, the court denied the petition for the first issue.[[719]](#footnote-719)

Addressing (2) whether venue remained proper even where alleged misconduct was not immediately related to the asserted place of business, the court emphasized factor (ii), stating that the question “is not one on which there is currently a substantial degree of disagreement or a demonstrated need for immediate appellate resolution.”[[720]](#footnote-720) The court briefly assessed the statutory language, finding that the “and” connecting the requirements (acts of infringement *and* place of business) does not necessarily suggest a “tight[] linkage” between them; the court also briefly assessed the case law, finding no clear disagreement across circuits.[[721]](#footnote-721) While denying the petition, the court suggested questions (1) and (2) remain open for resolution upon appeal.[[722]](#footnote-722)

 In dissent, Judge Reyna reasoned that the petition presented a novel and important question for internet businesses[[723]](#footnote-723) and that granting petition was warranted for the same reasons given for granting other venue-related petitions after *TC Heartland*.[[724]](#footnote-724) Reciting *In Re Cray*, Judge Reyna statedthat § 1400(b) requires a physical “place” and “cannot be read to refer . . . merely to a virtual space or to electronic communications from one person to another”;[[725]](#footnote-725) further, Congress intended a more restrictive test for venue in patent than in other cases.[[726]](#footnote-726) In light of this, the district court’s reading of § 1400(b) to allow server ownership to suffice for a place of business seemed broader than even the reading *In Re Cray* rejected.[[727]](#footnote-727) That case denied venue where a company employee used a home office in the district—an outcome that should hardly rest, Judge Reyna reasoned, on whether the employee used a company-owned computer.[[728]](#footnote-728) Judge Reyna cited conflicting case law across circuits[[729]](#footnote-729) as to whether a company should be “subject to venue in any judicial district in which a [server or a] physical object belonging to the company [like a vending machine] was located”[[730]](#footnote-730)—and urged judicial clarification.

 **Denied Rehearing**: Google’s request for panel or *en banc* rehearing was denied without explanation.[[731]](#footnote-731)

 Judge Reyna, Judge Newman, and Judge Lourie dissented from the denial of rehearing en banc.[[732]](#footnote-732) Declining to issue the writ ignored litigants’ venue-related due process concerns.[[733]](#footnote-733) And it abdicated the Federal Circuit’s “supervisory and instructional roles,” threatening the “uniformity and predictability” that Judge Dyk, in a law review article, had called the “cornerstone[] of a well-functioning patent system.”[[734]](#footnote-734) Those fears were materializing. In the time since the panel’s denial, “another district court, in the Northern District of Texas, faced the identical legal issue in a case with a different defendant—'whether the presence of [defendant’s] servers at a data center owned by a third party constitutes a regular and established place of business’—and concluded that they did not.”[[735]](#footnote-735) The judge there noted the “‘far reaching consequences’ of concluding that venue was proper, which would ‘distort the scope of the statue.’”[[736]](#footnote-736) Indeed, Google had been sued thirty-four times in the same district on the same venue theory since the panel’s earlier opinion, and amici internet companies faced similar suits.[[737]](#footnote-737) Judge Reyna feared “the district court’s [theory, if not countered,] could essentially reestablish nationwide venue, in conflict with *TC Heartland*, by standing for the proposition that owning and controlling computer hardware involved in some aspect of company business (e.g., transmitting data) alone is sufficient.”[[738]](#footnote-738) He concluded, “The question is not if we will take this issue up, but when, and how many judicial and party resources will have been needlessly wasted by the time we do.”[[739]](#footnote-739)

## Unreasonable Delay and Patent Term Adjustment

#### *Supernus Pharms., Inc. v. Iancu*, 913 F.3d 1351 (Fed. Cir. Jan. 23, 2019)

In this appeal from the Eastern District of Virginia, the Federal Circuit reversed the lower court and held that the Patent and Trademark Office (“PTO”) had exceeded its authority by reducing a patent term for days of “delay” during which an applicant could not have taken any identifiable efforts to conclude prosecution.[[740]](#footnote-740) “Any reduction to [a patent term] shall be ‘equal to the period of time during which the applicant fail[s] to engage in reasonable efforts to conclude prosecution of the application.’”[[741]](#footnote-741)

 The Patent Term Adjustment (“PTA”) statute aims to discourage delay during patent prosecution. Under it, the PTO may add or subtract days from the patent term to account for undue delay by the PTO or applicant.[[742]](#footnote-742) This case focused on Supernus’s delay between its filing of a request for continued examination (“RCE”) on February 22, 2011, and its submission of an information disclosure statement (“IDS”) on November 29, 2012, when it informed the PTO of an opposition filed by Sandoz AG against its European patent application.[[743]](#footnote-743) Critically, only on September 11, 2012—546 days into this 646 day period of “delay”—had Supernus received notice from the European Patent Office of the opposition it later reported to the PTO.[[744]](#footnote-744) Nonetheless, the PTO determined that reducing the patent term by 646 days was appropriate (for the full period between the RCE and IDS).[[745]](#footnote-745) Before the district court, Supernus argued the PTO’s PTA regulations were arbitrary and capricious, and that 546 of the 646 days should not be counted against it.[[746]](#footnote-746) The district court found for the PTO on all grounds on summary judgment.[[747]](#footnote-747)

 On appeal, the Federal Circuit first held the district court had erred by deciding the case under *Gilead*.[[748]](#footnote-748) That caseinvolved an applicant who could have but did not take efforts to conclude patent prosecution; it held that the PTO’s PTA-related regulations were reasonable in that context.[[749]](#footnote-749) But this case, by contrast, entailed an applicant who for some time could *not* have taken efforts to conclude prosecution.[[750]](#footnote-750) An analysis of the statute and the agency regulations was thus in order.

 Moving to the *Chevron* analysis, the Federal Circuit decided the matter at step one: the PTA directly addressed the precise question at issue.[[751]](#footnote-751) The issue was “whether the [PTO] may reduce PTA by a period that exceeds the ‘time during which the applicant failed to engage in reasonable efforts to conclude prosecution.’”[[752]](#footnote-752) The statute’s language was “plain, clear, and conclusive”: any PTA reduction must be “***equal to*** the period of time during which the applicant failed to engage in reasonable efforts.”[[753]](#footnote-753) Here, the applicant was charged a period of time during which “no identifiable efforts . . . could have been taken,” and such time could not be part of “the period of failure to undertake reasonable efforts . . . .”[[754]](#footnote-754) The PTO’s “interpretation of the statute would unfairly penalize applicants, fail to incentivize applicants not to delay, and fail to protect applicants’ full patent terms.”[[755]](#footnote-755)

 Accordingly, the PTO’s actions exceeded statutory authority, and the 546 days could not be counted against Supernus’s term; the court remanded.[[756]](#footnote-756)

# PATENT TRIAL AND APPEAL BOARD

#### *Arthrex, Inc. v. Smith & Nephew, Inc.*,941 F.3d 1320 (Fed. Cir. October 31, 2019)

In this appeal from the Patent Trial and Appeal Board (“PTAB”), the Federal Circuit vacated and remanded, holding that the appointment of Administrative Patent Judges’ (“APJ”) by the Secretary of Commerce violates the Appointments Clause of the U.S. Constitution.[[757]](#footnote-757)

Arthrex’s ‘907 patent involves a “knotless suture securing assembly.”[[758]](#footnote-758) In an *inter partes* review of the patent, a panel of three APJs found the claims patent ineligible. Arthrex appealed, arguing the APJs are principal officers who must be appointed by the President and confirmed by the Senate, but were not.[[759]](#footnote-759)

On appeal, the Federal Circuit agreed. The Appointments Clause stipulates the President, with the advice and consent of the Senate, must nominate “Officers of the United States,” but Congress may vest the appointment of “inferior Officers … in the President alone, in the Courts of Law, or in the Heads of Departments.”[[760]](#footnote-760) The “principal officers,” those who must be appointed by the president, are those who “exercise significant authority pursuant to the laws of the United States.”[[761]](#footnote-761)

Three factors help distinguish principal from inferior officers: “(1) whether an appointed official has the power to review and reverse the officers’ decision; (2) the level of supervision and oversight an appointed official has over the officers; and (3) the appointed official’s power to remove the officers.”[[762]](#footnote-762) The Federal Circuit reasoned the second factor weighed towards APJs being inferior officers because The Director of the PTO has “authority to promulgate regulations governing inter partes review procedure and to issue policy interpretations which the APJs must follow.”[[763]](#footnote-763) However, the first and third factors weighed towards APJs being principal officers because they “have substantial power to issue final decisions on behalf of the United States without any review by a presidentially-appointed officer” and “are not removeable without cause.”[[764]](#footnote-764) Further, the Court noted APJs “do not have limited tenure, limited duties, or limited jurisdiction” and “wield significantly more authority than their Examiner-in-Chief predecessors”[[765]](#footnote-765) Given these considerations, the Federal Circuit concluded APJs are principal officers and, thus, “the current structure of the board violates the Appointments Clause.”[[766]](#footnote-766)

The Federal Circuit next considered whether the constitutionality issue may be addressed through severance.[[767]](#footnote-767) They concluded the “narrowest remedy” is severing the statutory removal restrictions for APJs.[[768]](#footnote-768) Nonetheless, for this case, the Federal Circuit vacated and remanded the Board’s decision because it “was made by a panel of APJs that were not constitutionally appointed at the time the decision was rendered.”[[769]](#footnote-769) The Federal Circuit further held Arthrex was entitled to a hearing by a new panel of APJs on remand.[[770]](#footnote-770)

#### *Bedgear, LLC v. Fredman Bros. Furniture Co.*, 783 Fed.Appx. 1029 (Mem) (Fed. Cir. Nov. 7, 2019)

In this appeal from the Patent Trial and Appeal Board (“PTAB”), the Federal Circuit (Judges Newman, Dyk, and Stoll) vacated and remanded three *inter partes* review decisions.[[771]](#footnote-771) Bound by their earlier decision in *Arthrex v. Smith & Nephew*, the Court held the appointments of Administrative Patent Judges (“APJs”) violated the Constitution’s Appointments Clause and Bedgear was entitled to a rehearing on remand by a new panel of APJs.[[772]](#footnote-772)

Judge Dyk, with Judge Newman joining, concurred but believed a rehearing before a new panel was unnecessary.[[773]](#footnote-773) According to Judge Dyk, the remedy in *Arthrex* “imposes large and unnecessary burdens on the system of inter partes review, requiring potentially hundreds of new proceedings, and involves unconstitutional prospective decision-making.”[[774]](#footnote-774) The Court in *Arthrex* erred by not making its ruling retroactive so that past actions by APJs would be constitutionally compliant.[[775]](#footnote-775) They improperly held *Lucia v. S.E.C.* required a rehearing by a new panel.[[776]](#footnote-776) *Lucia* involved an “agency fix,” while *Arthrex* involved a “judicial fix.”[[777]](#footnote-777) And, whereas agencies “generally act only prospectively,” judicial decisions are also “necessarily retrospective.”[[778]](#footnote-778) The decision in *Arthrex* furtherignores binding Supreme Court precedent that new hearings are only required when either “the appointment’s defect had not been cured” or “the cure was the result of non-judicial action.”[[779]](#footnote-779) Thus, because the construction in *Arthrex* retroactively addressed the appointments constitutionality issue, prior decisions by APJs are valid.[[780]](#footnote-780)

## Inter Partes Review Procedure

#### *BioDelivery Sciences International, Inc. v. Aquestive Therapeutics, Inc.*, 935 F.3d 1362 (Fed. Cir. August 29, 2019)

In this appeal from the Patent Trial and Appeal Board (“PTAB”), the Federal Circuit (Judges Lourie and Reyna) held 35 U.S.C.S. § 314(d) barred judicial review of the PTAB’s decision to not institute *inter partes* review (“IPR”).[[781]](#footnote-781) Judge Newman dissented.[[782]](#footnote-782)

 BioDelivery filed three petitions of IPR, containing a total of seventeen grounds, for Aquestive Therapeutics’ ‘167 patent.[[783]](#footnote-783) The PTAB reviewed one ground in each petition, but declined to review the other fourteen because it found BioDelivery did not establish a reasonable likelihood of success on the merits.[[784]](#footnote-784) The Federal Circuit originally vacated and remanded the PTAB’s decision without deciding on the merits because, under *SAS*, “IPR proceedings must proceed in accordance with or in conformance to the petition, including each claim challenged and the grounds on which the challenge to each claim is based.”[[785]](#footnote-785) The PTAB eventually revised its previous decisions and declined to institute IPR at all.[[786]](#footnote-786)

 On appeal, the Federal Circuit held the PTAB properly exercised its discretion to not institute IPR after revising its earlier partial review error.[[787]](#footnote-787) The court noted “Section 314(d) plainly states that the Patent Office's decision whether to institute IPR is not appealable.”[[788]](#footnote-788) And “there is no requirement that once instituted, IPRs must proceed through final written decisions.”[[789]](#footnote-789)

 Judge Newman dissented.[[790]](#footnote-790) She would have held the PTAB had not properly followed the court’s original remand instruction.[[791]](#footnote-791) “The PTO indeed had discretion to decline to institute these IPRs. However, here the PTO did institute the IPRs, and conducted full trials and issued final written decisions on the aspects it considered.”[[792]](#footnote-792) Thus, she believed the PTAB needed to address all the challenged claims to comply with the remand order rather than revise the three final decisions.[[793]](#footnote-793)

#### *Celgene Corp. v. Peter*, 931 F.3d 1342 (Fed. Cir. July 30, 2019)

In this appeal from consolidated *inter partes* reviews (“IPRs”) before the Patent Trial and Appeal Board (“PTAB”), the Federal Circuit held that “the retroactive application of IPR proceedings to pre-AIA patents is not an unconstitutional taking under the Fifth Amendment.”[[794]](#footnote-794) (Other issues in the IPRs and on appeal are not addressed here.)

The Federal Circuit first decided to entertain Celgene’s “constitutional challenge even though it was not raised below” as an exception to the rule of waiver.[[795]](#footnote-795) Such retroactivity challenges were raised but unresolved by the Supreme Court’s recent decision in *Oil States Energy Services v. Greene’s Energy Group*, the issue was a question of law appropriate for *de novo* review, and the issue was well-briefed (among other reasons).[[796]](#footnote-796)

Turning to the merits: Celgene advanced “a regulatory takings theory” that “subjecting its pre-AIA patents to IPR, a procedure that did not exist at the time its patents issued, unfairly interferes with reasonable investment-backed expectations without just compensation.”[[797]](#footnote-797) The court concluded, however, that the IPR procedures did not differ “from the pre-AIA review mechanisms significantly enough, substantively or procedurally, to effectuate a taking.”[[798]](#footnote-798) Patents have always been reviewable by courts and for decades by the PTO. Specifically, both of the patents in suit could have been subject to *ex parte* reexamination at the time filed, and *inter partes* reexamination was also available at the time one of the two was filed.[[799]](#footnote-799) IPR and the reexamination predecessors entertain the same substantive issues (anticipation and obviousness) under the same standard of proof (preponderance) and construction (at all relevant times the “broadest reasonable interpretation” standard).[[800]](#footnote-800) In past cases, the Supreme Court has even underscored that court challenges, reexaminations, and IPRs are all “different forms of the same thing—reexamination.”[[801]](#footnote-801) While IPRs are adjudicatory and come with procedural differences, including with respect to discovery, briefing, and oral argument, “[n]o one has a vested right in any given mode of procedure.”[[802]](#footnote-802) And just because a meritless patent might have had greater commercial value pre-IPR than now, when patents are subjected to review more frequently or vigorously than previously, does not mean investing in meritless patents was ever reasonable.[[803]](#footnote-803) Finally, though all parties agreed patents were private property for the purposes of the takings clause,[[804]](#footnote-804) the court emphasized that the *presumption of validity* is not a property right subject to constitutional protection.[[805]](#footnote-805)

#### *DexMedia Inc. v. Click-to-Call Techs., LP*, 139 S.Ct. 2742 (June 24, 2019)

Previously, the Federal Circuit decided that serving a district court complaint more than one year before seeking *inter partes* review (IPR) bars petition for IPR, even where a district court dismisses the complaint without prejudice.[[806]](#footnote-806)

Recently, the Supreme Court granted certiorari to answer “[w]hether 35 U.S.C. § 314(d) permits appeal of the [Patent Trial and Appeal Board]’s decision to institute an [IPR] upon finding . . . § 315(b)’s time bar did not apply.”[[807]](#footnote-807) A decision is expected by June.

#### *Return Mail, Inc. v. U.S. Postal Service*, 139 S. Ct. 1853, 1867-68 (U.S. June 10, 2019).

The Supreme Court granted certiorari[[808]](#footnote-808) as to “whether the government is a ‘person’ who may petition to institute review proceedings under the AIA.”[[809]](#footnote-809)

 The case concerns a patent that Return Mail alleges the U.S. Postal Office used.[[810]](#footnote-810) Because the federal government cannot be sued for patent infringement under the Patent Act, Return Mail sued for compensation under 28 U.S.C. § 1498(a) at the U.S. Court of Federal Claims.[[811]](#footnote-811) The U.S. Postal Office petitioned for a covered business method (“CBM”) review at the Patent Trial and Appeal Board (“PTAB”).[[812]](#footnote-812) The PTAB initiated the CBM, and invalidated Return Mail’s patent.[[813]](#footnote-813) On appeal, the Federal Circuit affirmed, holding the PTAB had authority to initiate the proceeding.[[814]](#footnote-814)

 The majority held that a federal agency is presumptively not a “person,” and that the AIA did not rebut this presumption.[[815]](#footnote-815) Justices Breyer, Ginsburg, and Kagan dissented, pointing out that the government can obtain, maintain, and assert patents — and that under the legislative history and policy logic it should also be able to invoke administrative procedures to challenge other parties’ patents.[[816]](#footnote-816)

# DESIGN PATENTS

## Design Patent Exhaustion

#### *Automotive Body Parts Ass’n v. Ford Global Techs., LLC*, 930 F.3d 1314 (Fed. Cir. July 23, 2019).

 In this appeal from the Eastern District of Michigan, the Federal Circuit affirmed that design patents to a truck’s hood and headlamp were not exhausted by the sale of the truck and that truck buyers were not licensed to repair using parts embodying the patented designs.[[817]](#footnote-817) In short, the rule of patent exhaustion for design patents follows that for utility patents.[[818]](#footnote-818)

 The Automotive Body Parts Association (“ABPA”) had sought declaratory judgment that Ford’s D’299 and D’685 patents were invalid or unenforceable.[[819]](#footnote-819) The district court *sua sponte* entered summary judgment for Ford.

 On appeal, the Federal Circuit affirmed.[[820]](#footnote-820) Utility patent law has long held that “exhaustion attaches only to items sold by, or with the authorization of, the patentee.”[[821]](#footnote-821) Here, the court declined ABPA’s invitation to create a separate rule for design patents, explaining that design patent law aims to follow utility patent law wherever possible.[[822]](#footnote-822) Further, with respect to patent exhaustion in particular, even cases related to method patents have found ways to follow rules developed in cases related to article patents.[[823]](#footnote-823) Applying those rules to these facts, replacement hoods and headlamps contained new (and unauthorized) embodiments of the design patent, and so were infringing.[[824]](#footnote-824)

 Relatedly, the sale of the F-150 did not impart to customers a license to repair the hood and headlamp using replacements embodying the designs.[[825]](#footnote-825) Had Ford asserted a design patent covering the entire F-150, the manufacture of a replacement hood (and customer using it) would not have infringed. But “the name of the game is the claim.”[[826]](#footnote-826) And “Ford chose to claim designs as applied to portions of particular components.”[[827]](#footnote-827)

1. William H. Neukom Professor, Stanford Law School; Partner, Durie Tangri LLP. [↑](#footnote-ref-1)
2. J.D./M.B.A. expected 2021, Stanford Law School and Stanford Graduate School of Business. [↑](#footnote-ref-2)
3. J.D. expected 2021, Stanford Law School. [↑](#footnote-ref-3)
4. Am. Axle & Mfg., Inc. v. Neapco Holdings LLC, 939 F.3d 1355 (Fed. Cir. 2019). [↑](#footnote-ref-4)
5. *Id.* at 1358 (internal quotations and alterations omitted) (quoting U.S. Patent No. 7,774,911). [↑](#footnote-ref-5)
6. *Id.*  [↑](#footnote-ref-6)
7. *Id.* [↑](#footnote-ref-7)
8. *Id.* at 1359. [↑](#footnote-ref-8)
9. *Id.* at 1360. [↑](#footnote-ref-9)
10. *Id.* [↑](#footnote-ref-10)
11. *Id.* at 1368. [↑](#footnote-ref-11)
12. *Id.* at 1364. [↑](#footnote-ref-12)
13. *Id.* [↑](#footnote-ref-13)
14. *Id.* at 1367. [↑](#footnote-ref-14)
15. *Id.* at 1368. [↑](#footnote-ref-15)
16. *Id.* (citing *Affinity Labs,* 838 F.3d at 1256 n.1). [↑](#footnote-ref-16)
17. *Id.* at 1369 (quoting Appellant’s Reply Brief). [↑](#footnote-ref-17)
18. *Id.* at 1370. [↑](#footnote-ref-18)
19. *Id.* at 1371. [↑](#footnote-ref-19)
20. *Id.* at 1374-75. [↑](#footnote-ref-20)
21. *Chamberlain Grp., Inc. v. Techtronic Indus. Co.*, 935 F.3d 1341, 1342 (Fed. Cir. 2019). [↑](#footnote-ref-21)
22. *Id.* at 1345 (citing U.S. Patent No. 7,224,275). [↑](#footnote-ref-22)
23. *Id.* [↑](#footnote-ref-23)
24. *Id.* at 1345-46. [↑](#footnote-ref-24)
25. *Id.* at 1342. [↑](#footnote-ref-25)
26. *Id.* at 1346. [↑](#footnote-ref-26)
27. *Id.* [↑](#footnote-ref-27)
28. *Id.* at 1347 (citing *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1258 (Fed. Cir. 2016); Affinity Labs of Texas, LLC v. Amazon.com Inc., 838 F.3d 1266 (Fed. Cir. 2016)) [↑](#footnote-ref-28)
29. *Id.* at 1349. [↑](#footnote-ref-29)
30. *Id.* at 1348. [↑](#footnote-ref-30)
31. *Id*. at 1349. [↑](#footnote-ref-31)
32. *Id.* (citing *Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1347 (Fed. Cir. 2018)). [↑](#footnote-ref-32)
33. Solutran, Inc. v. Evalon, Inc., 931 F.3d 1161, 1163, 1166 (Fed. Cir. 2019). [↑](#footnote-ref-33)
34. *Id.* at 1164 (citing U.S. Patent No. 8,311,945). [↑](#footnote-ref-34)
35. *Id.* [↑](#footnote-ref-35)
36. *Id.* at 1165. [↑](#footnote-ref-36)
37. *Id.*  [↑](#footnote-ref-37)
38. *Id.* at 1166. [↑](#footnote-ref-38)
39. *Id.* at 1168 (citing, *e.g.*, Voter Verified, Inc. v. Election Sys. & Software LLC, 887 F.3d 1376 (Fed. Cir. 2018)). [↑](#footnote-ref-39)
40. *Id.* at 1167 (also stating the abstract idea as “credit[ing] a merchant’s account as soon as possible”). [↑](#footnote-ref-40)
41. *Id.* (citing 561 U.S. 593 (2010)). [↑](#footnote-ref-41)
42. *Id.* at 1166 (citing Content Extraction & Transmission LLC v. Wells Fargo Bank, National Ass’n, 776 F.3d 1343 (Fed. Cir. 2014)). [↑](#footnote-ref-42)
43. *Id.* at 1168. [↑](#footnote-ref-43)
44. *Id.* at 1167 (citing Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1336 (Fed. Cir. 2016)). [↑](#footnote-ref-44)
45. *Id.* (citing McRO, Inc. v. Bandai Namco Games America Inc., 837 F.3d 1299, 1313 (Fed. Cir. 2016)). [↑](#footnote-ref-45)
46. *Id.* at 1169. [↑](#footnote-ref-46)
47. *Id.*  [↑](#footnote-ref-47)
48. *Id.*  [↑](#footnote-ref-48)
49. *See* Trading Techs. Int’l, Inc. v. IBG LLC, Nos. 2017-2257, 2017-2621, 2018-1063, at \*1 (Apr. 18, 2019). [↑](#footnote-ref-49)
50. *Id.* at \*2-\*3. [↑](#footnote-ref-50)
51. *Id.* at \*7. [↑](#footnote-ref-51)
52. *Id.* at \*6. [↑](#footnote-ref-52)
53. *Id.* (citing Ultramercial, Inc. v. Hulu, LLC, 772 F.3d 709, 715 (Fed. Cir. 2014)). [↑](#footnote-ref-53)
54. *Id.* [↑](#footnote-ref-54)
55. *See id.* at \*6, 7, 8. [↑](#footnote-ref-55)
56. ChargePoint, Inc. v. SemaConnect, Inc., 920 F.3d 759, 763 (Fed. Cir. 2019). [↑](#footnote-ref-56)
57. *Id.* at 763-64. [↑](#footnote-ref-57)
58. *Id.* at 766, 767-68. [↑](#footnote-ref-58)
59. *Id.* at 767, 770. [↑](#footnote-ref-59)
60. *Id.* [↑](#footnote-ref-60)
61. *Id.* at 767. [↑](#footnote-ref-61)
62. *Id.* at 773. [↑](#footnote-ref-62)
63. *Id.* at 770. [↑](#footnote-ref-63)
64. *Id.* (quoting Alice Corp. v. CLS Bank Int'l, 573 U.S. 208, 220 (2014).). [↑](#footnote-ref-64)
65. *Id.* at 774 (quoting BSG Tech LLC, v. Buyseasons, Inc. 899 F.3d 1281, 1290 (Fed. Cir. 2018) (internal citation and quotations omitted)). [↑](#footnote-ref-65)
66. *Id.* [↑](#footnote-ref-66)
67. University of Florida Research Found. v. General Elec. Co., 916 F.3d 1363, 1364 (Fed. Cir. Feb. 26, 2019). [↑](#footnote-ref-67)
68. *Id.* at 1366 (citing U.S. Patent No. 7.062,251). [↑](#footnote-ref-68)
69. *Id.* at 1367. [↑](#footnote-ref-69)
70. *Id.*  [↑](#footnote-ref-70)
71. *Id.* (citing, *e.g.*, Intellectual Ventures I LLC v. Capital One Fin. Corp., 850 F.3d 1332,

1340 (Fed. Cir. 2017)). [↑](#footnote-ref-71)
72. *Id.* at 1367-68 (comparing with Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1336 (Fed. Cir. 2016)). [↑](#footnote-ref-72)
73. *Id.* at 1368 (contrasting with eligible claims that described how improvements were achieved in Visual Memory LLC v. NVIDIA Corp., 867 F.3d 1253 (Fed. Cir. 2017)). [↑](#footnote-ref-73)
74. *Id.* at 1368-69. [↑](#footnote-ref-74)
75. *Id.* at 1369 (citing 827 F.3d 1341, 1350 (Fed. Cir. 2016)). [↑](#footnote-ref-75)
76. *Id.* [↑](#footnote-ref-76)
77. *Id.* [↑](#footnote-ref-77)
78. Koninklijke KPN N.V. v. Gemalto M2M GmbH, 942 F.3d 1143 (Fed. Cir. Nov. 15, 2019). [↑](#footnote-ref-78)
79. *Id.* at 1146 (citing U.S. Patent No. 6,212,662). [↑](#footnote-ref-79)
80. *Id*. at 1145. [↑](#footnote-ref-80)
81. *Id.* at 1148. [↑](#footnote-ref-81)
82. *Id.* [↑](#footnote-ref-82)
83. *Id.* at 1153. [↑](#footnote-ref-83)
84. *Id.* at 1150. [↑](#footnote-ref-84)
85. *Id.* at 1151. [↑](#footnote-ref-85)
86. *Id.* at 1150-53 [↑](#footnote-ref-86)
87. *Id.* at 1153. [↑](#footnote-ref-87)
88. SRI Int’l, Inc. v. Cisco Sys., Inc., 930 F.3d 1295, 1300 (Fed. Cir. 2019). This opinion replaced a prior opinion, SRI Int’l, Inc. v. Cisco Sys., Inc., 918 F.3d 1368 (Fed. Cir. 2019). [↑](#footnote-ref-88)
89. *Id.* at 1312-13 (Lourie, J., dissenting). [↑](#footnote-ref-89)
90. *Id.* at 1301. [↑](#footnote-ref-90)
91. *Id.* at 1303. [↑](#footnote-ref-91)
92. *Id.*  [↑](#footnote-ref-92)
93. *Id.*  [↑](#footnote-ref-93)
94. *Id.*  [↑](#footnote-ref-94)
95. *Id.* at 1303-04. [↑](#footnote-ref-95)
96. *Id.* at 1312-13 (Lourie, J., dissenting) (citing 830 F.3d 1350, 1355 (Fed. Cir. 2016)). [↑](#footnote-ref-96)
97. *Id.* at 1313 (Lourie, J., dissenting). [↑](#footnote-ref-97)
98. *Id.*  [↑](#footnote-ref-98)
99. *Id.*  [↑](#footnote-ref-99)
100. *Id.*  [↑](#footnote-ref-100)
101. *Id.*  [↑](#footnote-ref-101)
102. SRI Int’l, Inc. v. Cisco Sys., Inc., No. 2017-2223, slip op. at 1-2 (Fed. Cir. July 12, 2019), ECF No. 77 (en banc denial). [↑](#footnote-ref-102)
103. *Id.* [↑](#footnote-ref-103)
104. *Id.* at 2. [↑](#footnote-ref-104)
105. Cellspin Soft, Inc. v. Fitbit, Inc., 927 F.3d 1306, 1309, 1315, 1317-18, (Fed. Cir. 2019) (discussing throughout Berkheimer v. HP Inc., 881 F.3d 1360 (Fed. Cir. 2018)). [↑](#footnote-ref-105)
106. *Id.* (citing U.S. Patent No. 8,738,794; U.S. Pat. No. 8,892,752; U.S. Pat. No. 9,258,698; U.S. Pat. No. 9,749,847). [↑](#footnote-ref-106)
107. *Id.* at 1316. [↑](#footnote-ref-107)
108. *Id.* at 1310-11. [↑](#footnote-ref-108)
109. *Id.* at 1311. [↑](#footnote-ref-109)
110. *Id.* at 1312. [↑](#footnote-ref-110)
111. *Id.* at 1311-12. [↑](#footnote-ref-111)
112. *Id.* at 1313 (quoting district court, Cellspin Soft, Inc. v. Fitbit, Inc., 316 F. Supp. 3d 1138, 1150 (N.D. Cal. 2018)). [↑](#footnote-ref-112)
113. *Id.* at 1313 (citing 881 F.3d 1360 (Fed. Cir. 2018)). [↑](#footnote-ref-113)
114. *Id.*  [↑](#footnote-ref-114)
115. The four patents were not directed towards improvements to technology as such, but “to the idea of capturing and transmitting data from one device to another.” *Id.* at 1315. [↑](#footnote-ref-115)
116. *See id.*  [↑](#footnote-ref-116)
117. *Id.* at 1317 (internal citations omitted) (citing 882 F.3d 1121, 1128 (Fed. Cir. 2018)). [↑](#footnote-ref-117)
118. *Id.* at 1316-17. [↑](#footnote-ref-118)
119. *Id.* at 1318. [↑](#footnote-ref-119)
120. *Id.* at 1319 (emphasis added). The court vacated and remanded. *Id.* at 1320. [↑](#footnote-ref-120)
121. MyMail, Ltd. v. ooVoo, LLC, 934 F.3d 1373, 1375 (Fed. Cir. August 16, 2019). [↑](#footnote-ref-121)
122. *Id.* at 1376 (citing U.S. patent 8,275,863 and 9,021,070). [↑](#footnote-ref-122)
123. *Id.* at 1378. [↑](#footnote-ref-123)
124. *Id.* [↑](#footnote-ref-124)
125. *Id.* [↑](#footnote-ref-125)
126. *Id.* at 1376. [↑](#footnote-ref-126)
127. *Id.* at 1379. [↑](#footnote-ref-127)
128. *Id.* at 1380. [↑](#footnote-ref-128)
129. *Id.*  [↑](#footnote-ref-129)
130. Cleveland Clinic Found. v. True Health Diagnostics LLC, No. 2018-1218, 2019 WL 1452697 (Fed. Cir. Apr. 1, 2019). [↑](#footnote-ref-130)
131. *Id.* at \*5-\*6 (discussing and rejecting an example hypothetical given in PTO guidance). [↑](#footnote-ref-131)
132. *Id.* at \*2 (citing Cleveland Clinic Foundation v. True Health Diagnostics LLC, 859 F.3d 1352 (Fed. Cir. 2017), cert. denied, 138 S. Ct. 2621 (2018)). [↑](#footnote-ref-132)
133. *Id.* at \*2. [↑](#footnote-ref-133)
134. *Id.* at \*4. [↑](#footnote-ref-134)
135. *Id.* (quoting Cleveland Clinic Found. v. True Health Diagnostics, LLC, No. 1:17-cv-00198-LMB-IDD, 2017 WL 3381976 (E.D. Va. Aug. 4, 2017)). [↑](#footnote-ref-135)
136. *Id.* at \*4. [↑](#footnote-ref-136)
137. *Id.* at \*5. [↑](#footnote-ref-137)
138. *Id.*  [↑](#footnote-ref-138)
139. *Id.* at \*5-\*6 (discussing PTO Example 29 and Ariosa Diagnostics, Inc. v. Sequenom, Inc., 788F.3d1371 (Fed. Cir. 2015)). [↑](#footnote-ref-139)
140. *Id.* [↑](#footnote-ref-140)
141. Athena Diagnostics, Inc. v. Mayo Collaborative Servs., LLC, 915 F.3d 743, 746 (Fed. Cir. 2019), *reh’g and reh’g en banc denied*, 927 F.3d 1333 (Fed. Cir. 2019). [↑](#footnote-ref-141)
142. *Id.* at 757-64 (Newman, J., dissenting). [↑](#footnote-ref-142)
143. 927 F.3d at 1335-73. [↑](#footnote-ref-143)
144. 915 F.3d*.* at 746-47. [↑](#footnote-ref-144)
145. *Id.* at 747. [↑](#footnote-ref-145)
146. *Id.*  [↑](#footnote-ref-146)
147. *Id.* at 748. [↑](#footnote-ref-147)
148. *Id.* at 749. [↑](#footnote-ref-148)
149. *Id.* at 751-52 (citing Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc., 827 F.3d 1042, 1048 (Fed. Cir. 2016)). [↑](#footnote-ref-149)
150. *Id.* at 752 (citing Cleveland Clinic Found. v. True Health Diagnostics LLC, 859 F.3d

1352, 1361 (Fed. Cir. 2017)). [↑](#footnote-ref-150)
151. *Id.* at 752. [↑](#footnote-ref-151)
152. *Id.* (citing Parker v. Flook, 437 U.S. 584, 71-72 [sic] (1978)). [↑](#footnote-ref-152)
153. *Id.* at 752 (citing Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 74-75 (2012)). [↑](#footnote-ref-153)
154. *Id.* at 753. [↑](#footnote-ref-154)
155. *Id.* at 754. [↑](#footnote-ref-155)
156. *Id.* at 756-57. [↑](#footnote-ref-156)
157. *Id*. [↑](#footnote-ref-157)
158. *Id.* at 757-64 (Newman, J., dissenting). [↑](#footnote-ref-158)
159. *Id.* at 759 (Newman, J., dissenting). [↑](#footnote-ref-159)
160. *Id.* at 762 (Newman, J., dissenting). [↑](#footnote-ref-160)
161. *Id.* at 762-64 (Newman, J., dissenting). [↑](#footnote-ref-161)
162. 927 F.3d at 1335. [↑](#footnote-ref-162)
163. *Id.* at 1334-35. [↑](#footnote-ref-163)
164. *Id.* at 1335 (Lourie, J., with Reyna and Chen, JJ, concurring in denial of petition for rehearing and rehearing en banc). [↑](#footnote-ref-164)
165. *Id.* at 1336 (citing Cleveland Clinic Found. v. True Health Diagnostics LLC, 859 F.3d 1352, 1363 (Fed. Cir. 2017), *cert. denied*, 138 S. Ct. 2621 (2018); Ariosa Diagnostics, Inc. v. Sequenom, Inc., 788 F.3d 1371, 1378 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 2511 (2016)). [↑](#footnote-ref-165)
166. *Id.* (citing Vanda Pharm. Inc. v. West-Ward Pharm. Int’l Ltd., 887 F.3d 1117, 1136 (Fed. Cir. 2018)). [↑](#footnote-ref-166)
167. *Id.* (citing Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc., 827 F.3d 1042, 1051 (Fed. Cir. 2016). [↑](#footnote-ref-167)
168. *Id.*  [↑](#footnote-ref-168)
169. *Id.* at 1337 (Hughes, J., with Prost, C.J., and Taranto, J, concurring in denial of petition for rehearing en banc). [↑](#footnote-ref-169)
170. *Id.*  [↑](#footnote-ref-170)
171. *Id.* at 1341 (Dyk, J., with Hughes and, in select parts, Chen, JJ., concurring) (quoting Diamond v. Diehr, 450 U.S. 175 (1981)). [↑](#footnote-ref-171)
172. *Id.* at 1338. [↑](#footnote-ref-172)
173. *Id.* (describing In re BRCA1- & BRCA2-Based Hereditary Cancer Test Patent Litig., 774 F.3d 755 (Fed. Cir. 2014), 774 F.3d 755 (Fed. Cir. 2014)). [↑](#footnote-ref-173)
174. *Id.* at 1339. [↑](#footnote-ref-174)
175. *Id.* at 1340 (citing Mayo, 566 U.S. at 77–78, 88–89). [↑](#footnote-ref-175)
176. *Id.* at (citing Association for Molecular Pathology v. Myriad Genetics, Inc., 569 U.S. 576, 596 (2013)). [↑](#footnote-ref-176)
177. *Id.* (citing 788 F.3d at 1376–77). [↑](#footnote-ref-177)
178. *Id.* at 1339 (explaining why). [↑](#footnote-ref-178)
179. *Id.* at 1341 (quoting Diamond v. Diehr, 450 U.S. 175 (1981)). [↑](#footnote-ref-179)
180. *Id.* (internal citation omitted) (citing 56 U.S. (15 How.) 62 (1854)). [↑](#footnote-ref-180)
181. *Id.* (citing 56 U.S. at 112-13). [↑](#footnote-ref-181)
182. *Id.* at 1342 (citing Diehr, 450 U.S. at 191–92 (1981); Parker v. Flook, 437 U.S. 584, 586 (1978)); Gottschalk v. Benson, 409 U.S. 63, 67-68 (1972)). [↑](#footnote-ref-182)
183. *Id.* at 1341. [↑](#footnote-ref-183)
184. *Id.* at 1342-43. [↑](#footnote-ref-184)
185. *Id.* at 1343. [↑](#footnote-ref-185)
186. *Id.* at 1343-44. [↑](#footnote-ref-186)
187. *Id.*  [↑](#footnote-ref-187)
188. *Id.*  [↑](#footnote-ref-188)
189. *Id.* at 1344 (Chen, J., concurring). [↑](#footnote-ref-189)
190. *Id.* at 1349. [↑](#footnote-ref-190)
191. *Id.* at 1351 (quoting Myriad, 569 U.S. at 591). [↑](#footnote-ref-191)
192. *Id.* at 1352. [↑](#footnote-ref-192)
193. *Id.* at 1345 (previous alterations omitted) (quoting Bilski v. Kappos, 561 U.S. 593, 611 (2010) (quoting Diehr, 450 U.S. at 188)). [↑](#footnote-ref-193)
194. *Id.* at 1347. [↑](#footnote-ref-194)
195. *Id.* at 1348-49. [↑](#footnote-ref-195)
196. *Id.* at 1351. [↑](#footnote-ref-196)
197. *Id.* at 1352 (Moore, J., with O’Malley, Wallach, and Stoll, JJ, dissenting in denial of petition for rehearing *en banc*). [↑](#footnote-ref-197)
198. *Id.*  [↑](#footnote-ref-198)
199. *Id.* at 1354 (quoting Mayo, 566 U.S. at 71)). [↑](#footnote-ref-199)
200. *Id.* (quoting Mayo, 566 U.S. at 72). [↑](#footnote-ref-200)
201. *Id.* (quoting Mayo, 566 U.S. at 71). [↑](#footnote-ref-201)
202. *Id.* at 1359. [↑](#footnote-ref-202)
203. *Id*. [↑](#footnote-ref-203)
204. *Id.* at 1361 (reprinting and analyzing claims). [↑](#footnote-ref-204)
205. *Id.* at 1362. [↑](#footnote-ref-205)
206. *Id.* [↑](#footnote-ref-206)
207. *Id.* at 1355. *See also id.* at 1358 (“Without patent protection to recoup the enormous R&D cost, investment in diagnostic medicine will decline.”) [↑](#footnote-ref-207)
208. *Id .* at 1363. [↑](#footnote-ref-208)
209. *Id.* (Newman, J., with Wallach, J, dissenting in denial of petition for rehearing *en banc*). [↑](#footnote-ref-209)
210. *Id.* at 1365 (quoting Diehr, 450 U.S. at 188). *See also id.* at 1366 (“There is no support in the Court's precedent for our abandonment of the invention-as-a-whole in determining eligibility under section 101.”). [↑](#footnote-ref-210)
211. *Id .*at 1364. [↑](#footnote-ref-211)
212. *Id.* at 1368-70. [↑](#footnote-ref-212)
213. *Id.* at 1365-66 (quoting Diehr, 450 U.S. at 188). [↑](#footnote-ref-213)
214. *Id.* at 1365(quoting Athena, 915 F.3d at 750). [↑](#footnote-ref-214)
215. *Id.*  [↑](#footnote-ref-215)
216. *Id.* at 1367-68. [↑](#footnote-ref-216)
217. *Id.* at 1370 (Stoll, J., with Wallach, J., dissenting in denial of petition for rehearing *en banc*). [↑](#footnote-ref-217)
218. *Id.* [↑](#footnote-ref-218)
219. *Id.* at 1371 (citing *Mayo*,566 U.S. at 72). [↑](#footnote-ref-219)
220. *Id.*  [↑](#footnote-ref-220)
221. *Id.* (O’Malley, J., dissenting in denial of petition for rehearing *en banc*). [↑](#footnote-ref-221)
222. *Id.*  [↑](#footnote-ref-222)
223. *Id.* at 1371-71 (quoting Lyon v. Bausch & Lomb Optical Co., 224 F.2d 530, 536 (2d Cir. 1955) (Hand, J.)). [↑](#footnote-ref-223)
224. *Id.* at 1372. [↑](#footnote-ref-224)
225. *Id.* (collecting cases). [↑](#footnote-ref-225)
226. *Id.* at 1373. [↑](#footnote-ref-226)
227. *Id.* [↑](#footnote-ref-227)
228. Natural Alternatives Int’l, Inc. v. Creative Compounds, LLC, 918 F.3d 1338, 1346-47 (Fed. Cir. 2019). [↑](#footnote-ref-228)
229. *Id.* at 1350-55 (Reyna, J., dissenting in part and concurring in part). [↑](#footnote-ref-229)
230. *Id.* at 1341(quoting U.S. Patent No. 5,965,596 col. 2 ll. 16-18); *see also id.* at 1343-44. [↑](#footnote-ref-230)
231. *Id.* at 1342, 1344. [↑](#footnote-ref-231)
232. *Id.* at 1344. [↑](#footnote-ref-232)
233. *Id.* (citing Vanda Pharms. Inc. v. West-Ward Pharms. Int’l Ltd., 887 F.3d 1117, 1134–36 (Fed. Cir. 2018)). [↑](#footnote-ref-233)
234. *Id.* at 1344-45(citing Vanda, 887 F.3d at 1135). [↑](#footnote-ref-234)
235. *Id.* at 1345-46. [↑](#footnote-ref-235)
236. *Id.* at 1345(citing Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 75-76 (2012)). [↑](#footnote-ref-236)
237. *Id.* at 1346. [↑](#footnote-ref-237)
238. *Id.* at 1347. [↑](#footnote-ref-238)
239. *Id.* at 1348. Another patent, the ’947, was determined to have been not asserted and not properly before the court. *Id.* [↑](#footnote-ref-239)
240. *Id.* [↑](#footnote-ref-240)
241. *Id.* [↑](#footnote-ref-241)
242. *Id.* [↑](#footnote-ref-242)
243. *Id.* at 1348-49. [↑](#footnote-ref-243)
244. *Id.* at 1349 (citing Funk Brothers Seed Co. v. Kalo Inoculant Co., 333 U.S. 127, 131 (1948)). [↑](#footnote-ref-244)
245. *Id.*  [↑](#footnote-ref-245)
246. *Id.* at 1349-50. [↑](#footnote-ref-246)
247. *Id.* at 1350. [↑](#footnote-ref-247)
248. *Id.* at 1344. [↑](#footnote-ref-248)
249. *Id.* at 1351 (Reyna, J., concurring in part). [↑](#footnote-ref-249)
250. *Id.* at 1354. [↑](#footnote-ref-250)
251. Endo Pharms. Inc. v. Teva Pharms. USA, Inc., 919 F.3d 1347, 1348 (Fed. Cir. 2019). [↑](#footnote-ref-251)
252. *Id.* at 1349-50. [↑](#footnote-ref-252)
253. *Id.* at 1351 (quoting Endo Pharms. Inc. v. Actavis Inc., No. 14-cv-1381-RGA, 2015 WL 5580488, at \*6 (D. Del. Sept. 23, 2015)). [↑](#footnote-ref-253)
254. *Id.* at 1351-52. [↑](#footnote-ref-254)
255. *Id.* at 1353. [↑](#footnote-ref-255)
256. *Id.* at 1353 (quoting Vanda Pharms. Inc. v. West-Ward Pharms. Int’l Ltd., 887 F.3d 1117, 1121 (Fed. Cir. 2018). [↑](#footnote-ref-256)
257. *Id.*  [↑](#footnote-ref-257)
258. *Id.* at 1353-54. [↑](#footnote-ref-258)
259. *Id.* at 1355. [↑](#footnote-ref-259)
260. *See id.* at 1356 (discussing Ariosa Diagnostics, Inc. v. Sequenom, Inc., 788 F.3d 1371 (Fed. Cir. 2015)). [↑](#footnote-ref-260)
261. *Id.* [↑](#footnote-ref-261)
262. *See id.* at 1354. [↑](#footnote-ref-262)
263. *Id.* at 1351. The clause from the patent was “wherein after said administration to said patient, the average [area under the curve] of oxymorphone over a 12-hour period is less than about 21 ng·hr/mL.”). [↑](#footnote-ref-263)
264. *See id.* at 1354-55. [↑](#footnote-ref-264)
265. *See id.* at 1354 (citations omitted) (citing Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 77, 87 (2012)). [↑](#footnote-ref-265)
266. *Id.* at 1355. [↑](#footnote-ref-266)
267. In re Guldenaar Holding B.V., 911 F.3d 1157, 11589-59 (Fed. Cir. 2018). [↑](#footnote-ref-267)
268. *Id.* at 1159. [↑](#footnote-ref-268)
269. *Id.* [↑](#footnote-ref-269)
270. *Id.* (quoting J.A. 35, 85). [↑](#footnote-ref-270)
271. *Id.* at 1159. [↑](#footnote-ref-271)
272. *Id.* at 1161. [↑](#footnote-ref-272)
273. *Id.* at 1159 (citing Alice Corp. v. CLS Bank Int’l, 573 U.S. 208 (2014)). [↑](#footnote-ref-273)
274. *Id.* at 1160 (citing Bilski v. Kappos, 561 U.S. 593, 611 (2010)). [↑](#footnote-ref-274)
275. *Id.* (citing *In re* Smith, 815 F.3d 816 (Fed. Cir. 2016)). [↑](#footnote-ref-275)
276. *Id.* at 1162. [↑](#footnote-ref-276)
277. *Id.* at 1161. [↑](#footnote-ref-277)
278. *Id.* (quoting Praxair Distrib., Inc. v. Mallinckrodt Hosp. Prod. IP Ltd., 890 F.3d 1024, 1032 (Fed. Cir. 2018)). [↑](#footnote-ref-278)
279. *Id.* (analogizing to the measuring cup in *In re* Miller, 418 F.2d 1392 (CCPA 1969)). [↑](#footnote-ref-279)
280. *Id.* (analogizing to the measuring cup in *In re* Miller, 418 F.2d 1392 (CCPA 1969)). [↑](#footnote-ref-280)
281. *Id.* (analogizing to the measuring cup in *In re* Miller, 418 F.2d 1392 (CCPA 1969)). [↑](#footnote-ref-281)
282. *Id.* at 1166 (Mayer, J., concurring). [↑](#footnote-ref-282)
283. *HZNP Medicines LLC v. Actavis Labs. UT, Inc.*, No. 2017-2149, 2019 WL 5076226 (Fed. Cir. Oct. 10, 2019). [↑](#footnote-ref-283)
284. *Id.* at \*1 (citing U.S. Patent Nos. 8,217,078; 9,132,110; 8,618,164; 9,168,304 9,168,305; 8,546,450; 9,101,591; 8,563,613; 9,220,784; 8,871,809; 8,252,838; and 9,066,913). [↑](#footnote-ref-284)
285. *Id.* at \*2. [↑](#footnote-ref-285)
286. *Id.* [↑](#footnote-ref-286)
287. *Id.* [↑](#footnote-ref-287)
288. *Id.* at \*3. [↑](#footnote-ref-288)
289. *Id.* at \*1. [↑](#footnote-ref-289)
290. *Id*. at \*7-8. [↑](#footnote-ref-290)
291. *Id.* at \*8. [↑](#footnote-ref-291)
292. *Id.* at \*9 (citing PPG Indus. v. Guardian Indus. Corp., 156 F.3d 1351, 1354 (Fed. Cir. 1998)). [↑](#footnote-ref-292)
293. *Id.* [↑](#footnote-ref-293)
294. *Id.* at \*10. [↑](#footnote-ref-294)
295. *Id.* [↑](#footnote-ref-295)
296. *Id.* at \*14. [↑](#footnote-ref-296)
297. *Id.* [↑](#footnote-ref-297)
298. *Id.* at \*16. [↑](#footnote-ref-298)
299. Idenix Pharm. LLC v. Gilead Scis. Inc., 941 F.3d 1149 (Fed. Cir. Oct. 30, 2019) [↑](#footnote-ref-299)
300. *Id.* at 1153 (citing U.S. Patent No. 7,608,597). [↑](#footnote-ref-300)
301. *Id.* [↑](#footnote-ref-301)
302. *Id.* [↑](#footnote-ref-302)
303. *Id.* [↑](#footnote-ref-303)
304. *Id.* [↑](#footnote-ref-304)
305. *Id.* at 1165. [↑](#footnote-ref-305)
306. *Id.* [↑](#footnote-ref-306)
307. *Id.* at 1163-64. [↑](#footnote-ref-307)
308. *Id.* at 1164. [↑](#footnote-ref-308)
309. *Id.* [↑](#footnote-ref-309)
310. *Id.* [↑](#footnote-ref-310)
311. *Id.* [↑](#footnote-ref-311)
312. *Id.* [↑](#footnote-ref-312)
313. *Id.* [↑](#footnote-ref-313)
314. *Id.* at 1165-66. [↑](#footnote-ref-314)
315. *Id.* at 1166. [↑](#footnote-ref-315)
316. Enzo Life Scis., Inc. v. Roche Molecular Sys.,928 F.3d 1340, 1342 (Fed. Cir. 2019). [↑](#footnote-ref-316)
317. *Id.* at 1343-44. [↑](#footnote-ref-317)
318. *Id.* at 1346. [↑](#footnote-ref-318)
319. *Id.* (citing 720 F.3d 1380 (Fed. Cir. 2013)). [↑](#footnote-ref-319)
320. *Id.* at 1347. [↑](#footnote-ref-320)
321. *Id.* at 1348-49 (“[E]ach labeled polynucleotide would need to be tested to determine whether it is hybridizable and detectable upon hybridization.”). [↑](#footnote-ref-321)
322. *Id.* at 1349. [↑](#footnote-ref-322)
323. *Id.* at 1348. [↑](#footnote-ref-323)
324. *Id.* at 1349. [↑](#footnote-ref-324)
325. Nuvo Pharms. (Ireland) Designated Activity Co. v. Dr. Reddy’s Labs. Inc., 923 F.3d 1368 (Fed. Cir. 2019). [↑](#footnote-ref-325)
326. *Id.* at 1381. [↑](#footnote-ref-326)
327. *Id.* at 1372-73. [↑](#footnote-ref-327)
328. *Id.*. [↑](#footnote-ref-328)
329. *Id.* at 1384. [↑](#footnote-ref-329)
330. Nuvo proposed five ways to read the claims thusly, none of them entertained in district court. *Id.* at 1377-79. But “[b]oth patents-in-suit . . . [clearly] recite[d] claims requiring amounts of uncoated PPI effective to raise the gastric pH to at least 3.5.”  *.* at 1378. [↑](#footnote-ref-330)
331. *Id.* at 1380-81. [↑](#footnote-ref-331)
332. *Id.* at 1379-80. [↑](#footnote-ref-332)
333. *Id.* at 1380. [↑](#footnote-ref-333)
334. *Id.* (quoting *Enzo Biochem, Inc. v. Gen–Probe Inc.*, 323 F.3d 956, 968 (Fed. Cir. 2002)). [↑](#footnote-ref-334)
335. *Id.* at 1381. [↑](#footnote-ref-335)
336. *Id.* at 1382 (citing Ariad Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1343-51 (Fed. Cir. 2010) (en banc)). [↑](#footnote-ref-336)
337. *Id.* at 1383 (distinguishing case). [↑](#footnote-ref-337)
338. *Id.*  [↑](#footnote-ref-338)
339. Centrak, Inc. v. Sonitor Techs. Inc., 915 F.3d 1360, 1362 (Fed. Cir. 2019). [↑](#footnote-ref-339)
340. *Id.* at 1363. [↑](#footnote-ref-340)
341. *Id.* at 1364. [↑](#footnote-ref-341)
342. *Id.* at 1365 (quoting CenTrak, Inc. v. Sonitor Techs., Inc., No. CV 14-183-RGA, 2017 WL 3730617, at \*8 (D. Del. Aug. 30, 2017)). [↑](#footnote-ref-342)
343. *Id.* at 1365. [↑](#footnote-ref-343)
344. *Id.* at 1362. [↑](#footnote-ref-344)
345. *Id.* at 1366 (“[W]ritten description is about whether the skilled reader of the patent disclosure can recognize that what was claimed corresponds to what was described; it is not about whether the patentee has proven to the skilled reader that the invention works, or how to make it work, which is an enablement issue.” (quoting Alcon Research Ltd. v. Barr Labs., Inc., 745 F.3d 1180, 1191 (Fed. Cir. 2014)). [↑](#footnote-ref-345)
346. *Id.* at 1367 (quoting Ariad Pharm., Inc. v. Eli Lilly & Co., 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc)). [↑](#footnote-ref-346)
347. *Id.*  [↑](#footnote-ref-347)
348. *Id.* at 1366 (citing ScriptPro LLC v. Innovation Associates, Inc, 833 F.3d 1336, 1341 (Fed. Cir. 2016)). [↑](#footnote-ref-348)
349. *Id.* at 1367 (citing Lockwood v. Am. Airlines, Inc., 107 F.3d 1565, 1567 (Fed. Cir. 1997)). [↑](#footnote-ref-349)
350. *Id.* at 1368-69 (discussing interview with doctors). [↑](#footnote-ref-350)
351. Barry v. Medtronic, Inc., 914 F.3d 1310, 1316-1317 (Fed. Cir. 2019). [↑](#footnote-ref-351)
352. *Id.* at 1317-19. [↑](#footnote-ref-352)
353. *Id.* at 1319. [↑](#footnote-ref-353)
354. *Id.* In late 2002 or early 2003, Dr. Barry had begun working on the idea with a sales representative of the DePuy medical-device company, whose devices Dr. Barry modified (or had modified on his behalf). [↑](#footnote-ref-354)
355. *Id.*  [↑](#footnote-ref-355)
356. *Id.* at 1321. [↑](#footnote-ref-356)
357. *See id.* at 1327-29; *id.* at 1336-37 (Prost, C.J., dissenting-in-part). [↑](#footnote-ref-357)
358. *Id.* at 1331 (citing Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 67 (1998)). [↑](#footnote-ref-358)
359. *Id.* at 1321 (citing Polara Eng'g Inc v. Campbell Co., 894 F.3d 1339, 1348 (Fed. Cir. 2018)); *id.* at 1331 (applying analysis from p. 1321 in the context of on-sale bar). [↑](#footnote-ref-359)
360. *Id.* at 1337 (Prost, C.J., dissenting-in-part)(citing Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 67-68 (1998)). [↑](#footnote-ref-360)
361. *Id.* (quoting In re Omeprazole Patent Litig., 536 F.3d 1361, 1373 (Fed. Cir. 2008)). [↑](#footnote-ref-361)
362. *Id.* at 1321 (setting out public use standard); *id.* at 1331 (adopting same reasoning when discussing on-sale bar). [↑](#footnote-ref-362)
363. *Id.* at 1322-23 (citing, among other cases, Seal-Flex, Inc. v. Athletic Track & Court Const., 98 F.3d 1318, 1324 (Fed. Cir. 1996)); *id.* at 1331 (adopting same reasoning when discussing on-sale bar). [↑](#footnote-ref-363)
364. *Id.* at 1321 (acknowledging that “readiness for patenting and experimental use . . . are related”). [↑](#footnote-ref-364)
365. *Id.* at 1325-26 (first citing Manville Sales Corp. v. Paramount Sys., Inc., 917 F.2d 544, 550 (Fed. Cir. 1990), then citing Polara Eng'g Inc v. Campbell Co., 894 F.3d 1339, 1349 (Fed. Cir. 2018)). [↑](#footnote-ref-365)
366. *Id.* at 1328 (“[R]egardless of the foregoing [discussion of, among other things, whether the claims were ready-for-patenting], the August and October surgeries come within the experimental-use exception. An inventor's use, while public in one sense, will not be considered a statutory public use if the use was experimental.”); *id.* (citing for its experimental use factors Clock Spring, L.P. v. Wrapmaster, Inc., 560 F.3d 1317, 1327 (Fed. Cir. 2009)). Those factors include:

(1) the necessity for public testing, (2) the amount of control over the experiment retained by the inventor, (3) the nature of the invention, (4) the length of the test period, (5) whether payment was made, (6) whether there was a secrecy obligation, (7) whether records of the experiment were kept, (8) who conducted the experiment, (9) the degree of commercial exploitation during testing, (10) whether the invention reasonably requires evaluation under actual conditions of use, (11) whether testing was systematically performed, (12) whether the inventor continually monitored the invention during testing, and (13) the nature of contacts made with potential customers.

*Id. See also id.* at 1331 (adopting this analysis from the public-use portion of its opinion into the on-sale portion of its opinion). [↑](#footnote-ref-366)
367. *Id.* at 1330-31 (discussing, among other cases, LaBounty Mfg., Inc. v. U.S. Int'l Trade Comm'n, 958 F.2d 1066, 1072 (Fed. Cir. 1992)). [↑](#footnote-ref-367)
368. *Id.* at 1336-47 (Prost, C.J., dissenting-in-part). [↑](#footnote-ref-368)
369. *Id.* at 1336-37 (Prost, C.J., dissenting-in-part). [↑](#footnote-ref-369)
370. *Id.* at 1337 (Prost, C.J., dissenting-in-part)(citing Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 67-68 (1998)). [↑](#footnote-ref-370)
371. *Id.* at 1336-37 (Prost, C.J., dissenting-in-part). [↑](#footnote-ref-371)
372. *Id.* at 1336-37 & n.3, 1340-41 (Prost, C.J., dissenting-in-part) (internal quotations omitted). [↑](#footnote-ref-372)
373. *Id.* at 1341 (Prost, C.J., dissenting-in-part) (characterizing majority findings, and quoting ’358 patent col. 6 ll. 7–8). [↑](#footnote-ref-373)
374. *Id.* at 1342 (Prost, C.J., dissenting-in-part). [↑](#footnote-ref-374)
375. *Id.* at 1342 (Prost, C.J., dissenting-in-part). [↑](#footnote-ref-375)
376. *Id.* at 1343 (Prost, C.J., dissenting-in-part). [↑](#footnote-ref-376)
377. *Id.* at 1344 (Prost, C.J., dissenting-in-part) (quoting Electromotive Div. of Gen. Motors Corp. v. Transp. Sys. Div. of Gen. Elec. Co., 417 F.3d 1203, 1211-12 (Fed. Cir. 2005)). [↑](#footnote-ref-377)
378. Helsinn Healthcare S.A. v. Teva Pharms. USA, Inc., 139 S. Ct. 628, 630 (2019) (citing Pfaff v. Wells Elecs., Inc., 525 U.S. 55, 67 (1998)). One of us—Lemley—wrote an amicus brief advocating for the result the Supreme Court reached. *See* Brief for 45 Intellectual Property Professors as Amici Curiae Supporting Respondents, 139 S. Ct. 628 (2019) (No. 17-1229), 2018 WL 4941710. [↑](#footnote-ref-378)
379. U.S. Patent Nos. 7,947,724; 7,947,725; 7,960,424; and 8,598,219 (collectively, “the patents-in-suit”). [↑](#footnote-ref-379)
380. Helsinn, 2017 WL 1541518, at \*1. [↑](#footnote-ref-380)
381. *Id.* [↑](#footnote-ref-381)
382. *Id.* at \*2. [↑](#footnote-ref-382)
383. *Id.* at \*3. [↑](#footnote-ref-383)
384. *Id.* at \*1. [↑](#footnote-ref-384)
385. *Id.* at \*4. [↑](#footnote-ref-385)
386. Helsinn Healthcare S.A. v. Teva Pharms. USA, Inc., 138 S. Ct. 2678 (June 25, 2018). [↑](#footnote-ref-386)
387. Helsinn Healthcare S.A., 139 S. Ct. at 632. [↑](#footnote-ref-387)
388. *Id.*  [↑](#footnote-ref-388)
389. *Id.* at 634. [↑](#footnote-ref-389)
390. *Id.* [↑](#footnote-ref-390)
391. Airbus S.A.S. v. Firepass Corp., 941 F.3d 1374, 1375-76 (Fed. Cir. Nov. 4, 2019). [↑](#footnote-ref-391)
392. *Id.* at 1376 (citing U.S. Patent No. 6,418,752). [↑](#footnote-ref-392)
393. *Id.* [↑](#footnote-ref-393)
394. *Id.* [↑](#footnote-ref-394)
395. *Id* at 1377. [↑](#footnote-ref-395)
396. *Id.* [↑](#footnote-ref-396)
397. *Id.* at 1377-78 [↑](#footnote-ref-397)
398. *Id.* at 1379. [↑](#footnote-ref-398)
399. *Id.* [↑](#footnote-ref-399)
400. *Id.* at 1380. [↑](#footnote-ref-400)
401. *Id*. at 1382. [↑](#footnote-ref-401)
402. *Id.* [↑](#footnote-ref-402)
403. *Id.* at 1380. [↑](#footnote-ref-403)
404. *Id.* at 1382. [↑](#footnote-ref-404)
405. *Id.*at 1382-83. [↑](#footnote-ref-405)
406. *Id.* at 1383. [↑](#footnote-ref-406)
407. *Id.* [↑](#footnote-ref-407)
408. *Id.*at 1384. [↑](#footnote-ref-408)
409. *OSI Pharm., LLC v. Apotex Inc.*, 939 F.3d 1375, 1377 (Fed. Cir. 2019). [↑](#footnote-ref-409)
410. *Id.* at 1377-78 (citing U.S. Patent No. 6,900,221). [↑](#footnote-ref-410)
411. *Id*. at 1379. [↑](#footnote-ref-411)
412. *Id*. (citing U.S. Patent No. 5,747,498). [↑](#footnote-ref-412)
413. *Id.* [↑](#footnote-ref-413)
414. *Id.* [↑](#footnote-ref-414)
415. *Id.* [↑](#footnote-ref-415)
416. *Id.*  at 1380. [↑](#footnote-ref-416)
417. *Id.* at 1380. [↑](#footnote-ref-417)
418. *Id.* [↑](#footnote-ref-418)
419. *Id.* [↑](#footnote-ref-419)
420. *Id.* at 1381. [↑](#footnote-ref-420)
421. *Id.* [↑](#footnote-ref-421)
422. *Id.* at 1377. [↑](#footnote-ref-422)
423. *Id.* at 1383. [↑](#footnote-ref-423)
424. *Id.* [↑](#footnote-ref-424)
425. Endo Pharms. Inc. v. Actavis LLC, 922 F.3d 1365, 1367, 1373 (Fed. Cir. May 2019). [↑](#footnote-ref-425)
426. *Id.* at 1367-68 (citing U.S. Patent No. 8,871,779). [↑](#footnote-ref-426)
427. *Id.* at 1368 (quoting ’779 col. 2 ll. 29-32). [↑](#footnote-ref-427)
428. *Id.* at 1374-75. [↑](#footnote-ref-428)
429. *Id.* at 1375. [↑](#footnote-ref-429)
430. *Id*. [↑](#footnote-ref-430)
431. *Id.* at 1377. [↑](#footnote-ref-431)
432. *Id.* at 1375. [↑](#footnote-ref-432)
433. *Id.* at 1376. [↑](#footnote-ref-433)
434. *Id.* [↑](#footnote-ref-434)
435. *Id.* at 1377. [↑](#footnote-ref-435)
436. *Id.*  [↑](#footnote-ref-436)
437. *Id.* at 1378. [↑](#footnote-ref-437)
438. *Id.* at 1378-81 (Stoll, J., dissenting). [↑](#footnote-ref-438)
439. *Id.* at 1379. [↑](#footnote-ref-439)
440. *See id.* at 1380. [↑](#footnote-ref-440)
441. *Id.* [↑](#footnote-ref-441)
442. *Id.* at 1376. [↑](#footnote-ref-442)
443. *Id.* at 1381. [↑](#footnote-ref-443)
444. Grunenthal GMBH v. Alkem Labs. Ltd., 919 F.3d 1333, 1336 (Fed. Cir. 2019). [↑](#footnote-ref-444)
445. *Id.* at 1344-45. [↑](#footnote-ref-445)
446. *Id.* at 1336. [↑](#footnote-ref-446)
447. *Id.* [↑](#footnote-ref-447)
448. *Id.* [↑](#footnote-ref-448)
449. *Id.* at 1338. [↑](#footnote-ref-449)
450. *Id.* at 1341 (citing, for standard of law, IXI IP, LLC v. Samsung Elecs. Co., Ltd., 903 F.3d 1257, 1262 (Fed. Cir. 2018)). [↑](#footnote-ref-450)
451. *Id.*  [↑](#footnote-ref-451)
452. *Id.* at 1344 (citing KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 417 (2007)). [↑](#footnote-ref-452)
453. *Id.* at 1343. [↑](#footnote-ref-453)
454. *Id.* at 1341. [↑](#footnote-ref-454)
455. *Id.* at 1343. [↑](#footnote-ref-455)
456. *Id.* at 1342 (quoting Figure 1). [↑](#footnote-ref-456)
457. *Id.* at 1345 (citing KSR, 550 U.S. at 421). [↑](#footnote-ref-457)
458. *Id.* at 1343. [↑](#footnote-ref-458)
459. *Id.* at 1343. [↑](#footnote-ref-459)
460. Forest Labs., LLC v. SigmaPharm Labs., LLC, 918 F.3d 928, 932 (Fed. Cir. 2019). [↑](#footnote-ref-460)
461. *Id.* at 935-36. [↑](#footnote-ref-461)
462. *Id.* at 931-32. [↑](#footnote-ref-462)
463. *Id.* at 933-34. [↑](#footnote-ref-463)
464. *Id.*  [↑](#footnote-ref-464)
465. *Id.* at 937. [↑](#footnote-ref-465)
466. *Id.* at 934 (quoting Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc., 183 F.3d 1347, 1356 (Fed. Cir. 1999)). [↑](#footnote-ref-466)
467. *Cf. id.* at 934(citing Arctic Cat Inc. v. Bombardier Recreational Prods. Inc., 876 F.3d 1350, 1359 (Fed. Cir. 2017)). [↑](#footnote-ref-467)
468. *Id.* at 934-35. [↑](#footnote-ref-468)
469. *Id.* [↑](#footnote-ref-469)
470. *Id.* at 936 (citing WBIP, LLC v. Kohler Co., 829 F.3d 1317, 1332 (Fed. Cir.2016)). [↑](#footnote-ref-470)
471. *Id.* [↑](#footnote-ref-471)
472. *Id.* at 936-37. [↑](#footnote-ref-472)
473. *Id.*  [↑](#footnote-ref-473)
474. *Id.* at 937 (In re Soni, 54 F.3d 746, 750 (Fed. Cir. 1995)). [↑](#footnote-ref-474)
475. *Id.* at 935 (“The district court characterized the inventors’ discovery as a recognition of an unknown problem in the art [cardiotoxicity] in conjunction with the discovery of the solution to that problem [sublingual administration reduced cardiotoxicity].”) [↑](#footnote-ref-475)
476. *Id.* at 937 (“A person of ordinary skill could not have been surprised that the sublingual route of administration did not result in cardiotoxic effects because the person of ordinary skill would not have been aware that other routes of administration do result in cardiotoxic effects.”) [↑](#footnote-ref-476)
477. *Id.*  [↑](#footnote-ref-477)
478. *Id.* at 935-36. [↑](#footnote-ref-478)
479. *Cf. id.* at 935-36 (discussing that special knowledge of ). [↑](#footnote-ref-479)
480. *Id.*  [↑](#footnote-ref-480)
481. *Id.* at 934-35. [↑](#footnote-ref-481)
482. *Id.* at 934. [↑](#footnote-ref-482)
483. *Id.* at 935. [↑](#footnote-ref-483)
484. *Id.* at 934-35. [↑](#footnote-ref-484)
485. Realtime Data, LLC v. Iancu, 912 F.3d 1368, 1373 (Fed. Cir. 2019). [↑](#footnote-ref-485)
486. *Id.* at 1370. [↑](#footnote-ref-486)
487. *Id.*  [↑](#footnote-ref-487)
488. *Id.* at 1372. [↑](#footnote-ref-488)
489. *Id.* at 1372-73. [↑](#footnote-ref-489)
490. Realtime chose to focus on differences in how the claimed invention and the O’Brien reference “maintain[]” a dictionary. The PTAB sidestepped this question of claim construction, and it again proved unavailing on appeal. *See id.* at 1371 (explaining alleged differences in the technologies); *id.* at 1374-76 (addressing construction issues, and summarizing that “[t]he Board did not expressly construe the phrase ‘maintaining a dictionary,’ but found that O'Brien satisfied this limitation because it disclosed all of the steps in [a] dependent claim” that stated “maintaining a dictionary comprises the steps of”). [↑](#footnote-ref-490)
491. *Id.* at 1372. [↑](#footnote-ref-491)
492. *Id.* at 1373 (quoting Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548 (Fed. Cir. 1983)). [↑](#footnote-ref-492)
493. *Id.* at 1373. [↑](#footnote-ref-493)
494. *Id.*  [↑](#footnote-ref-494)
495. *Id.* at 1372 (citing KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 418 (2007)). [↑](#footnote-ref-495)
496. *Id.* at 1373. [↑](#footnote-ref-496)
497. *Id.* at 1373-74. [↑](#footnote-ref-497)
498. *MTD Prods. Inc. v. Iancu*, 933 F.3d 1336, 1338 (Fed. Cir. 2019). [↑](#footnote-ref-498)
499. *Id.* [↑](#footnote-ref-499)
500. *Id.* at 1339. [↑](#footnote-ref-500)
501. *Id.* [↑](#footnote-ref-501)
502. *Id.* at 1340. [↑](#footnote-ref-502)
503. *Id.* at 1340-41 (quoting *Toro Co. v. MTD Prods. Inc.*, No. IPR2016-00194, 2017 WL 1969747, at \*9 (P.T.A.B. May 10, 2017)). [↑](#footnote-ref-503)
504. *Id*. [↑](#footnote-ref-504)
505. *Id.*  at 1338. [↑](#footnote-ref-505)
506. *Id.* at 1344. [↑](#footnote-ref-506)
507. *Id.* at 1345. [↑](#footnote-ref-507)
508. *Id.* [↑](#footnote-ref-508)
509. *Id.* [↑](#footnote-ref-509)
510. *Ajinomoto Co. v. ITC*, 932 F.3d 1342 (Fed. Cir. 2019). [↑](#footnote-ref-510)
511. *Id.* at 1346. (citing U.S. Patent No. 7,666,655). [↑](#footnote-ref-511)
512. *Id.* at 1347. [↑](#footnote-ref-512)
513. *Id.* [↑](#footnote-ref-513)
514. *Id.* [↑](#footnote-ref-514)
515. *Id.* at 1348. [↑](#footnote-ref-515)
516. *Id.* [↑](#footnote-ref-516)
517. *Id.* [↑](#footnote-ref-517)
518. *Id.* at 1349. [↑](#footnote-ref-518)
519. *Id.* [↑](#footnote-ref-519)
520. *Id.* at 1351-52. [↑](#footnote-ref-520)
521. *Id.* at 1358. [↑](#footnote-ref-521)
522. *Id.* at 1361. [↑](#footnote-ref-522)
523. Sony Corp. v. Iancu, 924 F.3d 1235, 1237 (Fed. Cir. 2019). [↑](#footnote-ref-523)
524. *Id.* at 1237 (quoting U.S. Patent No. 6,097,676 col. 12, ll. 28-43). [↑](#footnote-ref-524)
525. *Id.* at 1240 (citing Aristocrat Techs. Austl. Pty Ltd. v. Int’l Game Tech., 521 F.3d 1328, 1333 (Fed. Cir. 2008)); *see also id.* at 1238 (calling this the “core question” of the IPR). [↑](#footnote-ref-525)
526. *Id.* at 1238. [↑](#footnote-ref-526)
527. *Id.* at 1240 (citing Aristocrat Techs. Austl. Pty Ltd. v. Int’l Game Tech., 521 F.3d 1328, 1333 (Fed. Cir. 2008)). [↑](#footnote-ref-527)
528. *Id.* at 1239. [↑](#footnote-ref-528)
529. *Id.* at 1240. [↑](#footnote-ref-529)
530. *Id.* at 1242-43 (Newman, J., dissenting). [↑](#footnote-ref-530)
531. BTG Int’l Ltd. v. Amneal Pharms. LLC, 923 F.3d 1063, 1066 (Fed. Cir. 2019). [↑](#footnote-ref-531)
532. *Id.* at 1067. [↑](#footnote-ref-532)
533. *Id.*  [↑](#footnote-ref-533)
534. *Id.* at 1069-70. [↑](#footnote-ref-534)
535. *Id.* at 1069. [↑](#footnote-ref-535)
536. *Id.* at 1071. [↑](#footnote-ref-536)
537. *Id.* at 1070 (quoting Wockhardt Bio AG v. Janssen Oncology, Inc., No. IPR2016-01582, 2018 WL 6317975, at \*3 (P.T.A.B. Dec. 3, 2018)). [↑](#footnote-ref-537)
538. *Id.* at 1071. [↑](#footnote-ref-538)
539. *Id.* (emphasis in opinion) (quoting U.S. Patent No. 8,822,438 col. 10 ll. 54–55). [↑](#footnote-ref-539)
540. *Id.* at 1072. [↑](#footnote-ref-540)
541. *Id.* (quoting J.A. 23065). [↑](#footnote-ref-541)
542. *Id.* at 1073. [↑](#footnote-ref-542)
543. Amgen Inc. v. Sandoz Inc, 923 F.3d 1023, 1025 (Fed. Cir. 2019). [↑](#footnote-ref-543)
544. *Id.* at 1032. [↑](#footnote-ref-544)
545. These were litigated under the Biologics Price Competition and Innovation Act (“BPCIA”), 42 U.S.C. § 262 (2012). *Id.* at 1025. [↑](#footnote-ref-545)
546. *Id.* at 1025-26. [↑](#footnote-ref-546)
547. *Id.* at 1028. [↑](#footnote-ref-547)
548. *Id.* at 1029 (agreeing with district court regarding doctrine of equivalents). [↑](#footnote-ref-548)
549. *Id.* at 1031. [↑](#footnote-ref-549)
550. *Id.* at 1028. [↑](#footnote-ref-550)
551. *Id.*  [↑](#footnote-ref-551)
552. *Id.* at 1029. [↑](#footnote-ref-552)
553. *Id.* (quoting London v. Carson Pirie Scott & Co., 946 F.2d 1534, 1538 (Fed. Cir. 1991)). [↑](#footnote-ref-553)
554. *Id.* at 1031. [↑](#footnote-ref-554)
555. *Id.* at 1032. [↑](#footnote-ref-555)
556. Du Pont v. Unifrax I LLC, No. 2017-2575, 2019 WL 1646491, at \*1 (Fed. Cir. Apr. 17, 2019). [↑](#footnote-ref-556)
557. *Id.* at \*1. [↑](#footnote-ref-557)
558. *Id.* (quoting U.S. Patent No. 8,607,926 fig. 1 (emphasis added)). [↑](#footnote-ref-558)
559. *Id.* at \*2-\*3, \*4. [↑](#footnote-ref-559)
560. *Id.*  [↑](#footnote-ref-560)
561. *Id.* at \*4. [↑](#footnote-ref-561)
562. *Id.* (citing Phillips v. AWH Corp., 415 F.3d 1303, 1312-14 (Fed. Cir. 2005) (en banc)). [↑](#footnote-ref-562)
563. *Id.* at \*5 (quoting ’926 patent col. 9 ll. 14-17). [↑](#footnote-ref-563)
564. *Id.* at \*5. [↑](#footnote-ref-564)
565. *Id.*  [↑](#footnote-ref-565)
566. *Id.* at \*6 (quoting Wang Labs., Inc. v. Am. Online, Inc., 197 F.3d 1377, 1384 (Fed. Cir. 1999)). [↑](#footnote-ref-566)
567. *Id.* at \*5 (quoting U.S. Patent No. 8,292,027 col. 2 ll. 32-36). [↑](#footnote-ref-567)
568. *Id.* at \*6-\*7. [↑](#footnote-ref-568)
569. *Id.* at \*7. [↑](#footnote-ref-569)
570. *Id.*  [↑](#footnote-ref-570)
571. *Id.*  [↑](#footnote-ref-571)
572. *Id.* at \*13 (O’Malley, J., dissenting). [↑](#footnote-ref-572)
573. *Id.*  [↑](#footnote-ref-573)
574. *Id.* at \*14 (O’Malley, J., dissenting). [↑](#footnote-ref-574)
575. *Id.* (alterations in court opinion) (quoting J.A. 819 at 63:13-64:25). [↑](#footnote-ref-575)
576. *Id.* (citing Elekta Instrument S.A. v. O.U.R. Sci. Int’l, Inc., 214 F.3d 1302, 1308 (Fed. Cir. 2000)). [↑](#footnote-ref-576)
577. *Id.* at \*14 (O’Malley, J., dissenting). [↑](#footnote-ref-577)
578. *Id.* at \*15 (O’Malley, J., dissenting). [↑](#footnote-ref-578)
579. *Id.*  [↑](#footnote-ref-579)
580. Continental Circuits LLC v. Intel Corp., 915 F.3d 788, 792 (Fed. Cir. 2019). [↑](#footnote-ref-580)
581. *Id.* at 792. [↑](#footnote-ref-581)
582. *Id.* at 792-93, 795. [↑](#footnote-ref-582)
583. *Id.* at 794. [↑](#footnote-ref-583)
584. *Id.* at 796. [↑](#footnote-ref-584)
585. *Id.* (quoting Phillips v. AWH Corp., 415 F.3d 1303, 1317 (Fed. Cir. 2005) (en banc)). [↑](#footnote-ref-585)
586. *Id.*  [↑](#footnote-ref-586)
587. *Id.* at 797 (quoting ’582 patent col. 5 ll. 40–44 (emphasis added)). [↑](#footnote-ref-587)
588. *Id.* at 798. [↑](#footnote-ref-588)
589. *Id.*  [↑](#footnote-ref-589)
590. *Id.* (emphasis in opinion) (quoting J.A. 2074 ¶ 7). [↑](#footnote-ref-590)
591. *Id.* at 800. [↑](#footnote-ref-591)
592. Omega Patents, LLC v. Calamp Corp., No. 2018-1309, 2019 WL 1510676, at \*12 (Fed. Cir. Apr. 8, 2019) (summarizing result). [↑](#footnote-ref-592)
593. *Id.* at \*1. [↑](#footnote-ref-593)
594. *Id.* [↑](#footnote-ref-594)
595. *Id.* at \*2, \*3. [↑](#footnote-ref-595)
596. *Id.* [↑](#footnote-ref-596)
597. *Id.* (quoting '876 patent, col. 11, ll. 36–37 (emphasis added), and citing '885 patent, col. 11, ll. 16–17). [↑](#footnote-ref-597)
598. *See id.* at \*4 (failing to consider joint (divided) infringement theories); *see also* Akamai Techs., Inc. v. Limelight Networks, Inc., 797 F.3d 1020, 1022 (Fed. Cir. 2015) (en banc) (“We will hold an entity responsible for others' performance of method steps in two sets of circumstances: (1) where that entity directs or controls others' performance, and (2) where the actors form a joint enterprise.”). [↑](#footnote-ref-598)
599. *Id.* at \*5-\*6 (holding that CalAmp’s customers “controlled and used the system and received the required benefits,” but that failure to guide the jury on the agreed construction of “vehicle device” required setting aside findings of infringement on claim 12 of the ’876 patent and all claims of the ’885 patent). [↑](#footnote-ref-599)
600. The Supreme Court of course requires a showing that the defendant knew the acts were infringing at the time of infringement (though a mental state with respect to patent validity is irrelevant). *Id.* at \*8 (citing Commil USA, LLC v. Cisco Sys., Inc., 135 S. Ct. 1920, 1929 (2015); Global-Tech Appliances, Inc. v. SEB S.A., 563 U.S. 754, 769-70 (2011)). [↑](#footnote-ref-600)
601. *Id.* at \*8. [↑](#footnote-ref-601)
602. Eli Lilly & Co. v. Hospira, Inc., 2019 WL 3756065, at \*1 (Fed. Cir. Aug. 9, 2019). [↑](#footnote-ref-602)
603. *Id.* at \*1-2. [↑](#footnote-ref-603)
604. *Id.* at \*2. [↑](#footnote-ref-604)
605. *Id.* at \*3-4. [↑](#footnote-ref-605)
606. *Id.* at \*4. [↑](#footnote-ref-606)
607. *Id.* at \*3. [↑](#footnote-ref-607)
608. *Id.* at \*5. [↑](#footnote-ref-608)
609. *Id.* at \*1. The court underscored that the doctrine has been “consistently sustained by the Supreme Court,” and yet remains “the exception . . . not the rule” because it “conflicts with the definitional and public-notice functions of the statutory claiming requirement.” *Id.* at \*6 (quotations omitted). [↑](#footnote-ref-609)
610. *Id.* at \*6 (quoting Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 740-41 (2002)). [↑](#footnote-ref-610)
611. *Id.* at \*7 (quoting Festo, 535 U.S. at 740). [↑](#footnote-ref-611)
612. *Id.*  [↑](#footnote-ref-612)
613. *Id.*; *see also id.* at \*9 (emphasizing doctrines of prosecution history estoppel and equivalents as equitable doctrines). [↑](#footnote-ref-613)
614. *Id.* at \*7. [↑](#footnote-ref-614)
615. *Id.* at \*8. [↑](#footnote-ref-615)
616. *Id.* at \*9. [↑](#footnote-ref-616)
617. *Id.* at \*9-\*11. [↑](#footnote-ref-617)
618. *Id.* at \*10 (quoting PSC Comput. Prod., Inc. v. Foxconn Int’l, Inc., 355 F.3d 1353, 1360 (Fed. Cir. 2004)). [↑](#footnote-ref-618)
619. Amgen Inc. v. Coherus Biosciences Inc., 931 F.3d 1154, 1156 (Fed. Cir. 2019). [↑](#footnote-ref-619)
620. *Id.* at 1156-57. [↑](#footnote-ref-620)
621. *Id.* at \*1157. [↑](#footnote-ref-621)
622. *Id.* at \*1157-58. [↑](#footnote-ref-622)
623. *Id.* at \*1158. [↑](#footnote-ref-623)
624. *Id.* at \*1159. [↑](#footnote-ref-624)
625. *Id.*  [↑](#footnote-ref-625)
626. *Id.* at \*1160. [↑](#footnote-ref-626)
627. *Id.* at \*1160-61. [↑](#footnote-ref-627)
628. *Id.* at \*1161. [↑](#footnote-ref-628)
629. CFL Techs. LLC v. Osram Sylvania, Inc., No. 1:18-cv-01445-RGA, 2019 WL 2995815, at \*8 (D. Del. July 9, 2019). [↑](#footnote-ref-629)
630. *Id.* at \*1 (citing U.S. Patent Nos. 6,459,213 (“’213 Patent”); 6,172,464 (“’464 Patent”); 5,757,140 (“’140 Patent”); 5,510,681 (“’681 Patent”); and 5,510,680 (“’680 Patent”)). [↑](#footnote-ref-630)
631. *Id.* (citing Nilssen v. Osram Sylvania, Inc., 440 F. Supp. 2d 884, 911 (N.D. Ill. 2006) (“OSRAM I”), *aff’d*, 504 F.3d 1223 (Fed. Cir. 2007)). The predecessor asserted another group of patents shortly thereafter; after volunteering to dismiss its assertions as filed yet with leave to amend, it never filed any amendment; the court dismissed with prejudice. *Id.* at \*2 (discussing “OSRAM II”). [↑](#footnote-ref-631)
632. *Id.* (citing *Nilssen v. Wal-Mart Stores, Inc.*, 2008 WL 11350028 (N.D. Ill. Mar. 17, 2008). [↑](#footnote-ref-632)
633. *Id.* (citing 649 F.3d 1276 (Fed. Cir. 2011)). [↑](#footnote-ref-633)
634. *Id.* (citing *Nilssen v. Wal-Mart Stores, Inc.*, 438 F. App’x 898 (Fed. Cir. 2011)). [↑](#footnote-ref-634)
635. *Id.* at \*3. [↑](#footnote-ref-635)
636. *Id.* (collecting authorities). In the Third Circuit, the overall test is whether (1) a final judgment on the merits has been made (2) involving the same parties (3) and the same action. *See id.* at \*3 (citing Lubrizol Corp. v. Exxon Corp., 929 F.2d 960, 963 (3d Cir. 1991)). This third prong is what the Federal Circuit law determines. [↑](#footnote-ref-636)
637. *Id.* (citing Aspex Eyewear, Inc. v. Marchon Eyewear, Inc., 672 F.3d 1335, 1342 (Fed. Cir. 2012)). [↑](#footnote-ref-637)
638. *See id.* (citing Mentor Graphics Corp. v. EVE-USA, Inc., 851 F.3d 1275, 1299 (Fed. Cir. 2017), *cert. dismissed*, 139 S. Ct. 44 (2018); Brain Life, LLC v. Elekta Inc., 746 F.3d 1045, 1056 (Fed. Cir. 2014)). [↑](#footnote-ref-638)
639. *Id.* [↑](#footnote-ref-639)
640. *Id.* at \*3-4 (citing Kessler v. Eldred, 206 U.S. 285 (1907)). [↑](#footnote-ref-640)
641. *Id.* at \*4. [↑](#footnote-ref-641)
642. *Id.* (stating elements). [↑](#footnote-ref-642)
643. The court did not discuss whether the exception must be embraced by the regional circuit for it to be used. [↑](#footnote-ref-643)
644. *Id.* at \*4 (citing Dow Chem. Co. v. Nova Chemicals Corp. (Canada), 803 F.3d 620, 629 (Fed. Cir. 2015)). [↑](#footnote-ref-644)
645. *Id.* at \*6 (citing 649 F.3d 1276, 1290 (Fed. Cir. 2011)). [↑](#footnote-ref-645)
646. *Id.* at \*6, 6-8. [↑](#footnote-ref-646)
647. *Id.* at \*8. [↑](#footnote-ref-647)
648. *Id.* [↑](#footnote-ref-648)
649. Omega Patents, LLC v. Calamp Corp., No. 2018-1309, 2019 WL 1510676, at \*12 (Fed. Cir. Apr. 8, 2019) (summarizing result). [↑](#footnote-ref-649)
650. *Id.* at \*7 (citing Julien J. Studley, Inc. v. Gulf Oil Corp., 407 F.2d 521, 526–27 (2d Cir. 1969)). [↑](#footnote-ref-650)
651. *Id.*  [↑](#footnote-ref-651)
652. *Id.* at \*8. [↑](#footnote-ref-652)
653. *Id.* at \*7-\*8. [↑](#footnote-ref-653)
654. *Id.* at \*9-\*10. [↑](#footnote-ref-654)
655. *See* WesternGeco LLC v. Ion Geophysical Corp., 138 S. Ct. 2129 (2018), discussed *supra*. [↑](#footnote-ref-655)
656. WesternGeco LLC v. ION Geophysical Corp., 913 F.3d 1067 (2019). [↑](#footnote-ref-656)
657. *Id* at 1075. [↑](#footnote-ref-657)
658. *Id* at 1069, 1071. [↑](#footnote-ref-658)
659. It cited *Fresenius USA, Inc. v.* *Baxter International, Inc*.as holding a “judgment cannot be final for purposes of intervening patent invalidations if any part of the litigation continues . . . . *Id.* at 1071 (citing 721 F.3d 1330 (Fed. Cir. 2013)). [↑](#footnote-ref-659)
660. *Id.* at 1072. [↑](#footnote-ref-660)
661. *Id.*  [↑](#footnote-ref-661)
662. *Id.* [↑](#footnote-ref-662)
663. *Id.* at 1070, 1072. [↑](#footnote-ref-663)
664. *Id.* at 1072-73 (citing BIC Leisure Prods., Inc. v. Windsurfing Int’l Inc., 1 F.3d 1214 (Fed. Cir. 1993)). [↑](#footnote-ref-664)
665. *Id.* at 1073. [↑](#footnote-ref-665)
666. *Id.*  [↑](#footnote-ref-666)
667. *Id.* (citing i4i Ltd. P’ship v. Microsoft Corp., 598 F.3d 831, 849– 50 (Fed. Cir. 2010), *aff’d*, 564 U.S. 91 (2011)). [↑](#footnote-ref-667)
668. *Id.* at 1074 (citing Avid Tech., Inc. v. Harmonic, Inc., 812 F.3d 1040, 1047 (Fed. Cir. 2016)). [↑](#footnote-ref-668)
669. *Id.* at 1074. [↑](#footnote-ref-669)
670. *Id.* at 1075. [↑](#footnote-ref-670)
671. *Id.*  [↑](#footnote-ref-671)
672. NantKwest, Inc. v. Iancu, 898 F.3d 1177, 1180 (Fed. Cir. 2018) (en banc). [↑](#footnote-ref-672)
673. *Id.* at 1183. [↑](#footnote-ref-673)
674. *Id.* at 1180. [↑](#footnote-ref-674)
675. *Id.* (quoting 35 U.S.C. § 145 (1180)). [↑](#footnote-ref-675)
676. *Id.* at 1183. [↑](#footnote-ref-676)
677. *Id.*  [↑](#footnote-ref-677)
678. *Id.*  [↑](#footnote-ref-678)
679. *Id.* at 1181 (citing Alyeska Pipeline [Serv. Co. v. Wilderness Soc’y], 421 U.S. [240,] 260–62, 269 [(1975)]). [↑](#footnote-ref-679)
680. *Id.* at 1196 (Prost, C.J., dissenting) (citing 784 F.3d 219, 223–24 (4th Cir. 2015), cert. denied *sub nom.* Shammas v. Hirshfeld, 136 S. Ct. 1376 (2016)); *see also id.* at 1183, 1185. [↑](#footnote-ref-680)
681. *Id.* at 1182 (citing Summit Valley Indus., Inc. v. Local 112, United Bhd. of Carpenters, 456 U.S. 717, 721–22 (1982)). [↑](#footnote-ref-681)
682. *Id.* at 1192 (citing cases interpreting various statutes). [↑](#footnote-ref-682)
683. *Id.* at 1182 (citing Baker Botts L.L.P. v. ASARCO LLC, 135 S. Ct. 2158, 2164 (2015) (quoting 28 U.S.C. § 2412(d)(1)(A)). [↑](#footnote-ref-683)
684. *Id.* at 1180, 1181. [↑](#footnote-ref-684)
685. *Id.* at 1187. [↑](#footnote-ref-685)
686. *Id.* at 1190. [↑](#footnote-ref-686)
687. *Id.* at 1188-89. [↑](#footnote-ref-687)
688. *Id.* at 1191-92. [↑](#footnote-ref-688)
689. *Id.* at 1192-93. [↑](#footnote-ref-689)
690. *Id.* at 1194; *see also* *id.* at 1195 (rejecting the dissent’s arguments comparing text with another part of the Patent Act that specifies that “expenses” covers the salaries of some PTO employees). [↑](#footnote-ref-690)
691. *Id.* at 1195. [↑](#footnote-ref-691)
692. Dodocase VR, Inc. v. MerchSource, LLC, No. 2018-1724, 2019 WL 1758481, at \*1 (Fed. Cir. Apr. 18, 2019) [↑](#footnote-ref-692)
693. *Id.*  [↑](#footnote-ref-693)
694. *Id.* [↑](#footnote-ref-694)
695. *Id.* [↑](#footnote-ref-695)
696. *Id.* [↑](#footnote-ref-696)
697. *Id.* [↑](#footnote-ref-697)
698. *Id.* at \*2 (citing for the proposition that state law governs Volt Info. Scis., Inc. v. Bd. of Trs. of Leland Stanford Junior Univ., 489 U.S. 468, 474 (1989)). [↑](#footnote-ref-698)
699. *Id.* at \*3 (citing Dodocase VR, Inc. v. MerchSource, LLC, No. 17-CV-07088-EDL, 2018 WL 1456718, at \*7 (N.D. Cal. Mar. 23, 2018)). [↑](#footnote-ref-699)
700. *Id.* at \*3 (quoting Texas Instruments Inc. v. Tessera, Inc., 231 F.3d 1325, 1331 (Fed. Cir. 2000)). [↑](#footnote-ref-700)
701. *Id.* at \*3. [↑](#footnote-ref-701)
702. Westech Aerosol Corp. v. 3M Co., 927 F.3d 1378, 1380 (Fed. Cir. 2019). [↑](#footnote-ref-702)
703. *Id.* at 1380. [↑](#footnote-ref-703)
704. *Id.* at 1381. [↑](#footnote-ref-704)
705. *Id.* at 1380-81 (citing TC Heartland LLC v. Kraft Foods Grp. Brands, LLC, 137 S. Ct. 1514 (2017); In re Cray, 871 F.3d 1355, 1360 (Fed. Cir. 2017)). [↑](#footnote-ref-705)
706. *Id.* at 1380. [↑](#footnote-ref-706)
707. *Id.* at 1382 (citing In re ZTE (USA) Inc., 890 F.3d 1008, 1013 (Fed. Cir. 2018)). [↑](#footnote-ref-707)
708. *Id.* at 1382 (citing In re Cray Inc., 871 F.3d 1355, 1360 (Fed. Cir. 2017)). [↑](#footnote-ref-708)
709. *Id.* at 1382. [↑](#footnote-ref-709)
710. In re Google Inc., No. 2018-152, 2018 WL 5536478, at \*1 (Fed. Cir. Oct. 29, 2018). [↑](#footnote-ref-710)
711. *Id.* (quoting Amended Complaint at 2–3, SEVEN Networks, LLC v. Google LLC, 2:17- CV-00442 (E.D. Tex. Aug. 22, 2017), ECF No. 34). [↑](#footnote-ref-711)
712. *Id.* at \*1. [↑](#footnote-ref-712)
713. *Id.* at \*1 (citing In re Cray Inc., 871 F.3d 1355 (Fed. Cir. 2017)). [↑](#footnote-ref-713)
714. *Id.* at \*1. [↑](#footnote-ref-714)
715. *Id.*  [↑](#footnote-ref-715)
716. *Id.* [↑](#footnote-ref-716)
717. *Id.* at \*2. [↑](#footnote-ref-717)
718. *See Id.* at \*2 (quoting In re Micron Tech., Inc., 875 F.3d 1091, 1095 (Fed. Cir. 2017)). Indeed, the court said that any lack of clarity in the district decision counseled waiting until clear contrasting decisions in multiple circuits forced reassessment. *Id.* [↑](#footnote-ref-718)
719. *Id.* at \*3. [↑](#footnote-ref-719)
720. *Id.*  [↑](#footnote-ref-720)
721. *Id.*  [↑](#footnote-ref-721)
722. *Id.*  [↑](#footnote-ref-722)
723. *See id.* at \*4 (Reyna, J., dissenting) [↑](#footnote-ref-723)
724. *Id.* at \*4 (Reyna, J., dissenting) (citing TC Heartland LLC v. Kraft Foods Group Brands LLC, 137 S. Ct. 1514 (2017)). [↑](#footnote-ref-724)
725. *Id.* at \*5 (Reyna, J., dissenting) (quoting In re Cray Inc., 871 F.3d 1355, 1362 (Fed. Cir. 2017)). [↑](#footnote-ref-725)
726. *Id.* at \*5 (Reyna, J., dissenting) (citing In re Cray Inc., 871 F.3d at 1361). [↑](#footnote-ref-726)
727. *Id.* at \*5 (Reyna, J. dissenting). [↑](#footnote-ref-727)
728. *Id.*  [↑](#footnote-ref-728)
729. *Id.*  [↑](#footnote-ref-729)
730. *Id.* at \*6 (Reyna, J., dissenting). [↑](#footnote-ref-730)
731. *In re Google Inc.*, 914 F.3d 1377, 1378 (Fed. Cir. 2019). [↑](#footnote-ref-731)
732. *Id.* at 1378 (Reyna, J., dissenting). [↑](#footnote-ref-732)
733. *Id.* at 1378-79 (Reyna, J., dissenting) (citing Jack Henry & Assoc. v. Plano Encryption Techs. LLC, 910 F.3d 1199, 1203 (Fed. Cir. 2018)). [↑](#footnote-ref-733)
734. *Id.* at 1378 (Reyna, J., dissenting) (citing Timothy B. Dyk, *Federal Circuit Jurisdiction: Looking Back and Thinking Forward*, 67 Am. U. L. Rev. 971, 977 (2018)). [↑](#footnote-ref-734)
735. *Id.* at 1380 (Reyna, J., dissenting) (quoting CUPP Cybersecurity, LLC v. Symantec Corp., No. 3:18-CV-1554, Dkt. No. 44, at \*4-6 (N.D. Tex. Dec. 21, 2018)). [↑](#footnote-ref-735)
736. *Id.*  [↑](#footnote-ref-736)
737. *Id.* at 1380 (Reyna, J., dissenting). [↑](#footnote-ref-737)
738. *Id.* at 1381 (Reyna, J., dissenting). [↑](#footnote-ref-738)
739. *Id.* at 1382 (Reyna, J., dissenting). [↑](#footnote-ref-739)
740. Supernus Pharms., Inc. v. Iancu, 913 F.3d 1351, 1361 (Fed. Cir. 2019) (citing 35 U.S.C. § 154(b)(2)(C)(i)). [↑](#footnote-ref-740)
741. *Id.* at 1353. [↑](#footnote-ref-741)
742. *Id.* (citing 35 U.S.C. § 154(b)). [↑](#footnote-ref-742)
743. *Id.* at 1354-55 (outlining timeline of applications in United States and Europe). [↑](#footnote-ref-743)
744. *Id.* at 1355-56. [↑](#footnote-ref-744)
745. *Id.* at 1355. [↑](#footnote-ref-745)
746. *Id.* at 1355-56. [↑](#footnote-ref-746)
747. *Id.* at 1356. [↑](#footnote-ref-747)
748. *Id.* at 1357-58 (citing Gilead Scis., Inc. v. Lee, 778 F.3d 1341 (Fed. Cir. 2015)). [↑](#footnote-ref-748)
749. *Id.* at 1357. [↑](#footnote-ref-749)
750. *Id.*  [↑](#footnote-ref-750)
751. *Id.* at 1358 (citing Chevron U.S.A. Inc. v. NRDC, 467 U.S. 837, 843 (1984)). [↑](#footnote-ref-751)
752. *Id.* (quoting 35 U.S.C. § 154(b)(2)(C)(i)). [↑](#footnote-ref-752)
753. *Id.* at 1358, 1359 (emphasis in bold and italics original). [↑](#footnote-ref-753)
754. *Id.* at 1359. [↑](#footnote-ref-754)
755. *Id.* at 1360. [↑](#footnote-ref-755)
756. *Id.* at 1361. [↑](#footnote-ref-756)
757. Arthrex, Inc. v. Smith & Nephew, Inc., 941 F.3d 1320 (Fed. Cir. 2019). [↑](#footnote-ref-757)
758. *Id.* at 1324 (citing U.S. Patent No. 9,179,907B2). [↑](#footnote-ref-758)
759. *Id.* at 1327. [↑](#footnote-ref-759)
760. U.S. Const. art. II, § 2, cl. 2. [↑](#footnote-ref-760)
761. Arthrex 941 F.3d at 1327-28. (quoting Buckley v. Valeo, 424 U.S. 1, 125-26 (1976)) (quotations and alterations omitted). [↑](#footnote-ref-761)
762. *Id.* at 1329 (citing Edmond v. United States, 520 U.S. 651, 662–63 (1997)). [↑](#footnote-ref-762)
763. *Id.* at 1332. [↑](#footnote-ref-763)
764. *Id* at 1331-34. [↑](#footnote-ref-764)
765. *Id.* at 1335. [↑](#footnote-ref-765)
766. *Id*. [↑](#footnote-ref-766)
767. *Id.* [↑](#footnote-ref-767)
768. *Id.*at 1337-39. [↑](#footnote-ref-768)
769. *Id.* at 1339. [↑](#footnote-ref-769)
770. *Id.* (citing Lucia v. S.E.C., 138 S. Ct. 2044 (2018)). [↑](#footnote-ref-770)
771. Bedgear, LLC v. Fredman Bros. Furniture Co., 783 Fed.Appx. 1029 (Mem) (Fed. Cir. Nov. 7, 2019) [↑](#footnote-ref-771)
772. *Id.* at 1030 (citing Arthrex, Inc. v. Smith & Nephew, Inc., 941 F.3d 1320 (Fed. Cir. 2019)). [↑](#footnote-ref-772)
773. *Id.* [↑](#footnote-ref-773)
774. *Id.* [↑](#footnote-ref-774)
775. *Id.* [↑](#footnote-ref-775)
776. *Id.* at 1031. [↑](#footnote-ref-776)
777. *Id.* [↑](#footnote-ref-777)
778. *Id.* [↑](#footnote-ref-778)
779. *Id*. at 1032-34. (citing Free Enterprise Fund v. Public Co. Accounting Oversight Bd., 561 U.S. 477 (2010); Edmond v. United States, 520 U.S. 651, 655 (1997)). [↑](#footnote-ref-779)
780. *Id.* at 1034. [↑](#footnote-ref-780)
781. Biodelivery Sciences International, Inc. v. Aquestive Therapeutics, Inc., 935 F.3d 1362, 1367 (Fed. Cir. 2019). [↑](#footnote-ref-781)
782. *Id.* at 1367. [↑](#footnote-ref-782)
783. *Id.* at 1363 (citing U.S. Patent No. 8,765,167). [↑](#footnote-ref-783)
784. *Id.*  at 1363-64. [↑](#footnote-ref-784)
785. *Id.* at 1364 (citing *SAS Institute, Inc. v. Iancu,* 138 S. Ct. 1348, 200 L. Ed. 2d 695 (2018)) (internal quotations and citations omitted). [↑](#footnote-ref-785)
786. *Id.* [↑](#footnote-ref-786)
787. *Id*. at 1366. [↑](#footnote-ref-787)
788. *Id.* [↑](#footnote-ref-788)
789. *Id.* [↑](#footnote-ref-789)
790. *Id.* at 1367. [↑](#footnote-ref-790)
791. *Id.*  [↑](#footnote-ref-791)
792. *Id.* at 1369. [↑](#footnote-ref-792)
793. *Id.* [↑](#footnote-ref-793)
794. Celgene Corp. v. Peter, 931 F.3d 1342, 1346 (Fed. Cir. 2019). [↑](#footnote-ref-794)
795. *Id.* at 1357. [↑](#footnote-ref-795)
796. *Id.* at 1356-57 (citing 138 S. Ct. 1365 (2018)). [↑](#footnote-ref-796)
797. *Id.* at 1358. [↑](#footnote-ref-797)
798. *Id.* at 1358. [↑](#footnote-ref-798)
799. *Id.* at 1359. [↑](#footnote-ref-799)
800. *Id.* at 1360. [↑](#footnote-ref-800)
801. *Id.* at 1361 (citing Return Mail, Inc. v. United States Postal Serv., 139 S. Ct. 1853, 1860 (2019)). [↑](#footnote-ref-801)
802. *Id.* at 1361 (citing Denver & Rio Grande W. R.R. Co. v. Bhd. of R.R. Trainmen, 387 U.S. 556, 563 (1967)). [↑](#footnote-ref-802)
803. *Cf. id.* at 1362 (implying same). [↑](#footnote-ref-803)
804. *Id.* at 1357. [↑](#footnote-ref-804)
805. *Id.* at 1360. [↑](#footnote-ref-805)
806. Click-to-Call Techs., LP v. Ingenio Inc., 899 F.3d 1321, 1325 (Fed. Cir. 2018). [↑](#footnote-ref-806)
807. Petition for a Writ of Certiorari, No. 18-916, Dex Media, Inc. v. Click-to-Call Techs., LP, 2019 WL 211480, at \*i (U.S. Jan. 11, 2019) (stating questions); DexMedia Inc. v. Click-to-Call Techs., LP, 139 S. Ct. 2742 (June 24, 2019) (granting certiorari for question one). [↑](#footnote-ref-807)
808. Return Mail, Inc. v. U.S. Postal Service, No. 1-1594, 2018 WL 2364663 (U.S. Oct. 26, 2018). [↑](#footnote-ref-808)
809. Petition for a Writ of Certiorari for Appellant, Return Mail, Inc. v. U.S. Postal Service, 2018 WL 2412130, at \*I (U.S. May 14, 2018) (No. 17-1594). [↑](#footnote-ref-809)
810. *Id.* [↑](#footnote-ref-810)
811. *Id.* [↑](#footnote-ref-811)
812. *Id.* [↑](#footnote-ref-812)
813. *Id.* [↑](#footnote-ref-813)
814. *Id.* [↑](#footnote-ref-814)
815. 139 S. Ct. 1853, 1867-68 (June 10, 2019). [↑](#footnote-ref-815)
816. *Id.* at 1868-72(Breyer, J., with Ginsburg & Kagan, JJ., dissenting). [↑](#footnote-ref-816)
817. *See* Automotive Body Parts Ass’n v. Ford Global Techs., LLC, 930 F.3d 1314, 1325 (Fed. Cir. July 23, 2019). [↑](#footnote-ref-817)
818. *Id.* at 1322 (citing 35 U.S.C. § 171(b)). [↑](#footnote-ref-818)
819. *Id.* at 1317-18. [↑](#footnote-ref-819)
820. The court first addressed why the patents were indeed ornamental, not functional—an issue not reviewed here. *Id.* at 1319 (discussing). [↑](#footnote-ref-820)
821. *Id.* at 1322 (citing, *inter alia*, Bowman v. Monsanto Co., 569 U.S. 278, 286 (2013)). [↑](#footnote-ref-821)
822. *Id.* at 1322-23. [↑](#footnote-ref-822)
823. *Id.* at 1323 (citing Quanta Computer, Inc. v. LG Electronics, Inc., 553 U.S. 617 (2008)). [↑](#footnote-ref-823)
824. *Id.*  [↑](#footnote-ref-824)
825. *Id.* at 1323-24 (citing case barring manufacture of replacement patented sewing needles, Aiken v. Manchester Print Works, 1 F. Cas. 245 (C.C.D.N.H. 1865)). “[T]hough a sale of the F-150 truck permits the purchaser to repair the designs as applied to the specific hood and headlamps sold on the truck, the purchaser may not create new [nor purchase replacement] hoods and headlamps using Ford’s designs.” *Id.*  [↑](#footnote-ref-825)
826. *Id.* at 1324-25 (quoting Arlington Indus., Inc. v. Bridgeport Fittings, Inc., 632 F.3d 1246, 1255 n.2 (Fed. Cir. 2011)). [↑](#footnote-ref-826)
827. *Id.* at 1325 (internal citations omitted). [↑](#footnote-ref-827)