

WHO BENEFITS?: HOW THE AIA HURT DECEPTIVELY NON-JOINED INVENTORS

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ABSTRACT

Congress enacted the America Invents Act (“AIA”) to bolster economic development, sustain American innovation, and protect

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American jobs. This pro-business legislation, however, overlooked one actor critical to any successful innovation endeavor: the inventor. The AIA created access barriers, preventing inventors from efficiently and effectively seeking the entire remedy spectrum to which they are entitled. Paul Morinville and others have opined that the new first-to-file system put small inventors out of business, naming the AIA the single worst disaster in the history of the U.S. patent system. Beyond the filing and subject matter changes, the AIA created fundamental access to justice barriers that others have yet to fully interrogate. Through amendments to the AIA, specifically 35 U.S.C. § 256, Congress created a system which simultaneously impedes an inventor's comprehension of their rights to remedy, affords greater leeway to patent owners to protect inequitably obtained patents, and fails to penalize bad actors.

Congress removed the "deceptive intent" language from § 256 and formally allowed inventorship corrections regardless of inequitable conduct. These amendments removed the choice of remedy for an inventor deceptively overlooked in the patent process – no longer clearly presenting their rights to pursue correction or invalidation of the patent. The amendments hide the spectrum of remedies from the wronged actor, providing yet another corporate advantage in the already imbalanced power dynamic between inventor-employee and corporation-employer. Further, Congress created an undue and duplicative litigation burden, wherein actors can seek both patent inventorship correction and patent invalidation for inequitable conduct in parallel litigation proceedings. Herein, I propose amendments to reestablish the balance between inventor and corporation, improving access to remedies and reducing duplicative burdens on the U.S. court system. Through these changes, the AIA can effectively bolster economic development by recognizing and empowering inventors.

I. INTRODUCTION

In 2021, the University of Missouri-Kansas City ("UMKC") settled a nearly two-year legal battle with former professor, Ashim Mitra, after accusing "the professor of stealing research from a student and selling it to a pharmaceutical company."¹ Ashim Mitra was a professor at UMKC's School of Pharmacy and, according to the 2019 lawsuit, co-developed a dry eye drug with his graduate student, Dr. Kishore

1. Connor Stewart, *UMKC Settles Lawsuit with Professor Accused of Stealing Research, Receives \$6.45M*, UMKC ROO NEWS (Feb. 8, 2021), info.umkc.edu/unews/umkc-settles-lawsuit-with-professor-accused-of-stealing-research-receives-6-45m.

Cholkar.² Instead of filing a patent application with UMKC and listing Dr. Cholkar as a co-inventor, Dr. Mitra allegedly “took Dr. Cholkar’s research and work on this invention . . . and secretly sold Dr. Cholkar’s research and related inventions to a pharmaceutical development company, Auden Therapeutics.”³ Together, Dr. Mitra and Auden filed and obtained patents directed to the drug formulation “without naming Dr. Cholkar as an inventor and without getting approval from the University.”⁴

UMKC sued Ashim Mitra, the pharmaceutical company and other entities in 2019, requesting judgment to correct inventorship of the patents, declaring UMKC’s ownership, alleging breach of contract and fraudulent misrepresentation, among other claims.⁵ In the settlement, UMKC received \$6.45 million from Dr. Mitra and gave \$1.4 million to Dr. Cholkar, as well as a promise of future royalties.⁶ Though Dr. Cholkar stated that he felt that he was “cheated” when his name was not credited, UMKC has stated that the case is settled “confidentially and to [the university’s] satisfaction.”⁷

Because the case settled confidentially, many questions still remain. How much control did Dr. Cholkar have in the final settlement of \$1.4 million?⁸ Why are the patents in question expected to yield future royalties when an original inventor allegedly engaged in inequitable conduct?⁹ Why didn’t the United States Patent and Trademark Office (“USPTO”) render the patents unenforceable due to this alleged inequitable conduct?¹⁰ The answers lie within the depths of patent law.

Former president Barack Obama signed the America Invents Act (“AIA”) into law on September 16, 2011.¹¹ The AIA was recognized by many as “the most significant reform of the Patent Act since 1952, passed with bipartisan support to ‘help businesses, inventors, and

2. Complaint at 2, *Mitra v. Curators of Univ. of Mo.*, 322 F. App’x 467 (8th Cir. 2009).

3. *Id.*

4. *Id.*

5. *Id.* at 3.

6. Stewart, *supra* note 1.

7. *Id.*

8. *Id.*

9. *Former UMKC Student Will Get \$1.4M in Settlement with Ex-Professor*, KAN. CITY BUS. J. (Feb. 4, 2021, 8:52 AM), www.bizjournals.com/kansascity/news/2021/02/04/umkc-dry-eye-treatment-settlement.html; 37 C.F.R. § 1.56 (2022).

10. *See Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1285, 1287 (Fed. Cir. 2011) (en banc).

11. *President Obama Signs America Invents Act*, WHITE HOUSE (Sept. 16, 2011), obamawhitehouse.archives.gov/the-press-office/2011/09/16/president-obama-signs-america-invents-act-overhauling-patent-system-stim.

entrepreneurs”¹² The original statement from the White House highlighted many of the changes used by patent practitioners today.¹³ It was the fast track option for patent processing within twelve months, introducing new ways to avoid litigation for patent validity, and harmonizing “the American patent process with the rest of the world to make it more efficient and predictable.”¹⁴ At least one significant change to the Patent Act, however, went completely unmentioned in this release: amendments to 35 U.S.C. § 256 (“Section 256”), Correction of Named Inventor.¹⁵

Section 256 identifies when a party can correct the incorrect named inventorship on a patent.¹⁶ Before the AIA, parties could not correct inventorship unless the “error arose without any deceptive intention.”¹⁷ The AIA amended § 256 to remove this exception, theoretically allowing inventorship to be corrected regardless of the original intent.¹⁸ Effectively, the USPTO director does not need to consider intent in order to correct the patent inventorship under § 256.¹⁹

As noted in Patrick A. Doody’s *Comprehensive Legislative History of the Leahy-Smith America Invents Act*, the purpose of “[e]liminating the various deceptive-intent requirements moves the U.S. patent system away from the 19th century model that focused on the patent owner’s subjective intent, and towards a more objective-evidence-based system

12. *Id.* “The U.S. Patent Act, 35 U.S.C. §§ 1 *et seq.*, was enacted by Congress under its Constitutional grant of authority to secure for limited times to inventors the exclusive right to their discoveries.” *Patent*, www.law.cornell.edu/wex/patent, CORNELL L. SCH. LEGAL INFO. INST. (last visited July 25, 2022).

13. *See President Obama Signs America Invents Act*, *supra* note 11.

14. *See id.*

15. *Compare id.*, with *Redline Version (2011) 35 U.S.C. 256, Correction of Named Inventor*, BITLAW (last updated Nov. 2011), www.bitlaw.com/source/35usc/aia_redline/256.html (removing the phrase “and such error arose without any deceptive intention on his part”).

16. *See Redline Version (2011) 35 U.S.C. 256, Correction of Named Inventor*, *supra* note 15 (“Whenever through error a person is named in an issued patent as the inventor, or through error an inventor is not named in an issued patent, . . . the Director may, . . . issue a certificate correcting such error.”).

17. *See id.*; *Stark v. Advanced Magnetics, Inc.*, 119 F.3d 1551, 1555 (Fed. Cir. 1997); *see also Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011) (en banc) (“Because direct evidence of deceptive intent is rare, a district court may infer intent from indirect and circumstantial evidence.”).

18. *See Redline Version (2011) 35 U.S.C. 256, Correction of Named Inventor*, *supra* note 15.

19. *See 35 U.S.C. § 256 (2012)* (“[T]he Director may, on application of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issue a certificate correcting such error.”) The term “without deceptive intention” before “the Director may” was removed from the required facts and such other requirements as a result of the 2011 amendments. *See id.*

that will be much cheaper to litigate and more efficient to administer.”²⁰ The implication herein is simple: eliminating the deceptive-intent requirements creates a better patent system.

This paper questions this premise on three grounds: 1) Who benefits from eliminating the deceptive-intent requirement?²¹ 2) Who is disadvantaged by eliminating the deceptive-intent requirement?²² and 3) Did the AIA actually remove the deceptive intent requirement?²³ Herein, I argue that employers such as universities and corporations benefit the most from these amendments, with inventors suffering from deceptive nonjoinder losing a path to remedy.²⁴ The AIA did not remove the requirement to pursue a patent without fraud or inequitable conduct, but rather created additional obstacles to pursue invalidation of fraudulently-pursued patents.²⁵

Section II provides a brief overview of the patent process, explaining how parties pursue a patent at the USPTO and how inventors are recognized for their efforts.²⁶ Section III expands on this process, exploring the potential and realized impact of amending § 256 under the AIA and through Federal Circuit interpretation.²⁷ Section IV answers the questions presented in the previous paragraph through further analyzing the UMKC case and proposes legislative solutions to the issues at hand.²⁸

20. Patrick A. Doody, *Comprehensive Legislative History of the Leahy-Smith America Invents Act*, PILLSBURY WINTHROP SHAW PITTMAN LLP 1, 475 (2012), www.pillsburylaw.com/images/content/4/0/v2/4067/AIA-LegislativeHistory-final.pdf.

21. See *infra* Section IV.B.1.

22. See *infra* Section IV.B.2.

23. See *infra* Section IV.B.3. These questions are inspired by CATHERINE D’IGNAZIO & LAUREN KLEIN, *DATA FEMINISM* 1, 26 (MIT Press 2020) (“This often means asking uncomfortable questions: who is doing the work of data science (and who is not)? Whose goals are prioritized in data science (and whose are not)? And who benefits from data science (and who is either overlooked or actively harmed)?”).

24. See *infra* Section IV.B.1-2; see also *Nichols Inst. Diagnostics, Inc. v. Scantibodies Clinical Lab., Inc.*, 218 F. Supp. 2d 1243, 1246 (S.D. Cal 2002) (denying a motion for summary judgment and the motion for a stay, “[u]nder 35 U.S.C.S. § 256, correction of a patent is permissible only if the omitted inventor acted without deceptive intent. Although both the United States Patent and Trademark Office (“USPTO”) and the district court are under the same statutory obligation to determine a lack of deceptive intent, . . . the [US]PTO’s procedures for determining that issue are far more limited than those available in a district court. To show lack of deceptive intent, the [US]PTO requires only that the omitted inventor submit a *pro forma* declaration stating that the error of nonjoinder was committed without deceptive intent.”).

25. See *infra* Section IV.B.3; see also U.S. PAT. & TRADEMARK OFF., *MANUAL OF PATENT EXAMINING AND PROCEDURE* (“MPEP”) § 2016 (9th ed. 2020) (“A finding of ‘fraud,’ ‘inequitable conduct,’ or violation of duty of disclosure with respect to any claim in an application or patent, renders all the claims thereof unpatentable or invalid.”).

26. See *infra* Section II.

27. See *infra* Section III.

28. See *infra* Section IV.

II. AN OVERVIEW OF THE PATENT PROCESS

To understand the impact of amendments to § 256, it is important to understand the basics of patent prosecution at the USPTO.²⁹ An inventor or group of inventors are eligible to apply for a patent at the USPTO when they 1) conceive of a new and non-obvious invention, and 2) they can describe this invention to a person having ordinary skill in the art, such that the person would not need to unduly experiment to reproduce the invention.³⁰ When applying for a patent, they must include every inventor's name, a description of their invention, and claims describing what they believe to be novel about their invention.³¹ Inclusion of "more or less than the true inventors" on a patent can render the patent void.³²

Furthermore, inventors and companies must fill out information disclosure statements, disclosing all "information material to patentability."³³ In other words, each individual must tell the USPTO about all information they know may "establish, by itself or in combination with other information, a *prima facie* case of unpatentability" or may refute, "or is inconsistent with, a position the applicant takes in: opposing an argument of unpatentability relied on by the Office, or asserting an argument of patentability."³⁴ Failure to disclose the information may be considered fraud, bad faith, or intentional misconduct.³⁵

Once they apply for a patent, at least one patent examiner reviews their application and either allows or rejects the application.³⁶ If rejected, the inventors can refute the reasons presented for the rejection, as well as amend the claims to put the application in condition for allowance.³⁷

29. See generally Frank W. Dingley, *An Overview of Patent Prosecution*, 61 VA. LAW., no. 1, June-July 2012, at 47, 47.

30. See *id.*; 35 U.S.C. § 112 (2018).

31. Rebecca S. Eisenberg, *Obvious to Whom? Evaluating Inventions from the Perspective of PHOSITA*, 19 BERKELEY TECH. L.J. 885, 886 (2004).

32. *Jamesbury Corp. v. United States*, 518 F.2d 1384, 1395 (Ct. Cl. 1975) ("While it is true that the inclusion of more or less than the true inventors in a patent renders it void, there is a presumption that the inventors named in an issued patent are correct.") (internal citations omitted).

33. 37 C.F.R. § 1.97(h) (2020); 37 C.F.R. § 1.56 (2020).

34. 37 C.F.R. § 1.56(b)(3) (2020) ("A *prima facie* case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.")

35. 37 C.F.R. § 1.56 (2020) ("Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section.")

36. See Dingley, *supra* note 29, at n.5.

37. See *id.* at n.6.

Inventors may seek the assistance of a patent attorney or patent agent to help draft the patent application and assist in the patent examination process.³⁸

In the United States, many inventors have little control over their patent application or the resulting patent.³⁹ Though each co-inventor of a patent owns 100% of the patent according to 35 U.S.C. § 262, the law provides an important caveat.⁴⁰ “In the absence of any agreement to the contrary,” each inventor has the ability to “make, use, offer to sell, or sell the patented invention . . . without the consent of and without accounting to the other owners.”⁴¹ Less than 6% of all US-granted patents are owned by an individual.⁴² If inventors do not own their patent, they cannot “make, use, sell, or offer to sell” their invention without the express permission of the owner, nor can they prevent others from doing so.⁴³ These “agreement[s] to the contrary”—usually in the form of invention assignments to companies—can leave inventors with little control over their invention.⁴⁴

Employee-inventors can assign their ownership rights to a company in aggregate or piecemeal.⁴⁵ A piecemeal assignment would mean that an employee must individually assign each invention they create over the course of their employment, and that the employee does so each time

38. See *Fixing Inventorship Problems in U.S. Patent Applications and U.S. Patents*, RATNERPRESTIA, www.ratnerprestia.com/2014/02/16/fixing-inventorship-problems-in-u-s-patent-applications-and-u-s-patents (last visited July 25, 2022); see also *id.* at n.15.

39. See *id.* at 3.

40. 35 U.S.C. § 262 (1994) (“In the absence of any agreement to the contrary, each of the joint owners of a patent may make, use, offer to sell, or sell the patented invention within the United States, or import the patented invention into the United States, without the consent of and without accounting to the other owners.”).

41. See *id.*; see also Donald A. Degnan & Libby A. Huskey, *Inventorship: What Happens When You Don't Get It Right?*, HOLLAND & HART LLP 1, 3 (2006), www.hollandhart.com/articles/InventorshipWhatHappens.pdf.

42. U.S. PATENT AND TRADEMARK OFFICE, TOP ORGANIZATIONS 2020, PART A1- TABLE A1-2B, BREAKOUT BY OWNERSHIP CATEGORY, PERCENT OF PATENTS GRANTED AS DISTRIBUTED BY YEAR OF PATENT GRANT 16 (2020) (showing 4.1% for patents granted as of December 31, 2020); Stuart Graham et al., *Business Dynamics of Innovating Firms: Linking U.S. Patents with Administrative Data on Workers and Firms* 1, 7 (2015), www2.census.gov/ces/wp/2015/CES-WP-15-19.pdf (showing 0.5% for patent data from 2000–2011).

43. See James M. Rice, *The Defensive Patent Playbook*, 30 BERKELEY TECH. L.J. 725, 728, (2015) (“Too many owners held exclusive patent rights that inventors sought to build upon.”); *id.* at 730 (“Patent thickets exacerbated this problem because an inventor must purchase rights from numerous patent holders to make, use, or sell a new invention that builds upon prior patents.”); see also Degnan & Huskey, *supra* note 41, at 3.

44. See *Drafting Employee Work Made for Hire and IP Assignment Clauses*, PLC INTELLECTUAL PROPERTY & TECH. (Jan. 7, 2013), [content.next.westlaw.com/6-523-4246?_lrTS=20210816154323692&transitionType=Default&contextData=\(sc.Default\)&firstPage=true](http://content.next.westlaw.com/6-523-4246?_lrTS=20210816154323692&transitionType=Default&contextData=(sc.Default)&firstPage=true).

45. See *id.*; see also Emily A. Sample, *Assigned All My Rights Away: The Overuse of Assignment Provisions in Contracts for Patent Rights*, 104 IOWA L. REV. 447, 449 (2018).

they invent a new invention.⁴⁶ This one-at-a-time formula is rare for companies, although it may be used as a supplementary assignment system. Most of the time, employee-inventors assign their ownership rights in aggregate – and many times as a condition of employment.⁴⁷

As addressed in Emily Sample's work, employers often use overbroad assignment provisions in employment contracts, where employees will assign all rights to "an invention that has not yet been invented" to their employer.⁴⁸ Essentially, the employees will agree to disclose their invention(s) to the company, and assign all rights, title, and interest to their invention(s) to the company (whether or not patentable); employees will acknowledge that their invention(s) are "works made for hire" (to the greatest extent permitted by applicable law),⁴⁹ such that their salary is fair compensation for their work.⁴⁹ Moreover, they will usually agree to assist the company "in every proper way to secure the Company's rights in the Inventions . . . including the disclosure to the Company of all pertinent information and data with respect thereto . . ." ⁵⁰ Finally, many employees will "irrevocably designate and appoint the Company . . . as [their] agent and attorney, in fact" allowing them to "execute and file [patent] applications and to do all other lawfully permitted acts to further the application for, prosecution, issuance, maintenance, or transfer of letters patent . . . with the same legal force and effect as if originally executed by" the inventor.⁵¹

In the midst of employee-inventors essentially contracting away their rights, title, and interest to control their inventions over the course of their employment, they do retain one important right throughout the patent process: recognition. The USPTO will reject patent applications "for failing to set forth the correct inventorship."⁵² Patents later found to have incorrect inventorship may be held unenforceable, and, to avoid

46. Sample, *supra* note 45, at 449 n.4.

47. *Id.* at 468 n.156 (citing Marc B. Hershovitz, *Unhitching the Trailer Clause: The Rights of Inventive Employees and Their Employers*, 3 J. INTEL. PROP. L. 187, 187 (1995)) ("In an informal survey of several major corporations conducted by the author, every corporation contacted required the signing of an intellectual property agreement by employees as a condition of employment.")

48. Sample, *supra* note 45, at 462 ("The use of adhesion form contracts may mean that employers are overusing those contract provisions and that the standardized restraint is more likely to be overbroad in individual situations.") (citations omitted).

49. See *Invention Assignment Agreement*, SIMUL, www.simuldocs.com/templates/invention-assignment-agreement (last visited July 25, 2022).

50. *Id.*

51. *Id.*

52. U.S. PAT. & TRADEMARK OFF., MPEP § 2157 (9th ed. 2020) (explaining that for patent applications with effective filing dates on or after March 16, 2013, the USPTO will reject the applications under 35 U.S.C. § 101 and 35 U.S.C. § 115. But for patent applications with an effective filing date before March 16, 2013, the USPTO will reject the applications under pre-AIA 35 U.S.C. § 102(f)).

invalidation, may be corrected under § 256.⁵³ The patent is considered invalid if every inventor who conceived the invention described in the patent is not properly attributed and such improper attribution cannot be corrected.⁵⁴

Note also that inventors hold power in this process. Inventors must fill out a declaration, subject to punishment by fine or imprisonment that they believe they are an original inventor of the “claimed invention in the application.”⁵⁵ If they do not agree to this process, the company can attempt to circumvent them using contractual agreements such as those described above.⁵⁶ For example, “[i]f a joint inventor refuses to join in an application for patent or cannot be found or reached after diligent effort, the other joint inventor or inventors may make the application for patent on behalf of themselves and the omitted inventor.”⁵⁷ However, to file this substitute statement, the filer must show that they are a party having sufficient proprietary interest, meaning that they “ha[ve] the right to prosecute the application.”⁵⁸ If they cannot show this, their application may be denied.⁵⁹ No matter how difficult this process may be, all inventors must be identified on the patent application and subsequent patent; if the patent cannot be corrected to name all true inventors, the patent is invalid.⁶⁰

53. See *id.* (explaining that the applicant should submit a request to correct inventorship under 37 C.F.R. § 1.48); see also 35 U.S.C. § 256(b) (2018) (“The error of omitting inventors or naming persons who are not inventors shall not invalidate the patent in which such error occurred if it can be corrected as provided in this section.”); *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1376 (Fed. Cir. 2020) (“Precedent recognizes that a patent cannot be invalidated if inventorship can be corrected instead.”).

54. See, e.g., *PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc.*, 225 F.3d 1315, 1317 (Fed. Cir. 2000) (“Pharmacia raised, among others, the defenses that the patents were invalid for failure to name the correct inventors, and that they were unenforceable due to inequitable conduct practiced by the named inventors during prosecution.”); see also *Univ. of W. Va. v. VanVoorhies*, 278 F.3d 1288, 1302 (Fed. Cir. 2002) (“We therefore affirm the court’s grant of summary judgment in favor of WVU on VanVoorhies’ claim that the assignment should be declared invalid.”).

55. See *Declaration (37 CFR 1.63) for Utility or Design Application Using an Application Data Sheet (37 CFR 1.76)*, U.S. PAT & TRADEMARK OFF., www.uspto.gov/sites/default/files/documents/aia0001.pdf (last visited July 25, 2022).

56. See *Invention Assignment Agreement*, *supra* note 49.

57. 37 C.F.R. § 1.45(a) (2022).

58. Daniel M. Cislo, *What Should You Do if an Inventor Refuses to Sign a Declaration for Your Patent Application?*, CISLO & THOMAS LLP (June 26, 2018), cisloandthomas.com/what-should-you-do-if-an-inventor-refuses-to-sign-a-declaration-for-your-patent-application; 37 C.F.R. § 1.64(b)(3) (2022).

59. 37 C.F.R. § 1.64(c) (2022); 37 C.F.R. § 1.46(a) (2022).

60. See *Univ. of W. Va. v. VanVoorhies*, 278 F.3d 1288, 1299 (Fed. Cir. 2002) (“VanVoorhies argues that Smith and VanVoorhies had a relationship of trust concerning their inventions, and that Smith breached that trust by inducing VanVoorhies to list Smith as a co-inventor of the ‘970 application so that Smith could share in the revenues.”); *PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc.*, 225 F.3d 1315, 1317-18 (Fed. Cir. 2000) (deciding the question of whether the patents were invalid for failure to list the correct inventive entity). *But see*

Although every inventor can use their own attorney through this process, many inventors are guided by the attorney prosecuting the patent application on behalf of the company.⁶¹ This attorney certainly must uphold their ethical duties to “not represent a client if the representation involves a concurrent conflict of interest.”⁶² When applying for a patent application, however, there is likely no conflict between the company’s interest and the named employee’s interest because everyone desires to obtain a valid patent.⁶³ Therefore, an attorney can represent both the company and the company’s employees.⁶⁴

III. THE IMPACT OF REVISING SECTION 256

The AIA, one of the biggest changes to patent regulations in the United States, impacted several aspects of the patent system.⁶⁵ The AIA transitioned the “[United States] to a first-inventor-to-file system from a first-to-invent system” effective March 16, 2013.⁶⁶ It introduced Post Grant Review, “a trial proceeding conducted at the [Patent Trial and Appeal] Board to review the patentability of . . . claims in a patent on

35 U.S.C. § 256(b) (2018) (explaining that a patent shall not be invalid if corrections of a person as an inventor are made on the patent application under the first sentence of § 256(b), “and [§256(b)] also provides that a court may order correction of a patent; *the two sentences of this paragraph are independent.*”) (emphasis added).

61. Steven L. Lovett, *The Employee-Lawyer: A Candid Reflection on the True Roles and Responsibilities of In-House Counsel*, 34 J. L. & COM. 133, 116-17 (2015); *VanVoorhies*, 278 F.3d at 1304 (explaining that when patent counsel prosecutes a patent application in the name of an inventor as required by law, that act does not give rise to an attorney-client relationship between the entity that the inventor works for and the inventor, thus requiring disqualification when the entity and the inventor become adverse parties. “Rather, the assignee may choose its counsel for prosecution of the applications that it owns, and, should the entity later find it necessary to sue on the patent, it is to be expected that the entity will choose its regular patent counsel . . .”).

62. MODEL RULES OF PRO. CONDUCT r. 1.7 (AM. BAR ASS’N 2020).

63. See *Invention Assignment Agreement*, *supra* note 49.

64. Josephine Sandler Nelson, *The Conflict of Interest Inherent in a Corporation Paying for Its Employee’s Counsel: A Better Model for Preventing and Addressing Corporate Crime*, BERKELEY L. (Aug. 19, 2013, 7:41 AM), sites.law.berkeley.edu/thenetwork/2013/08/19/the-conflict-of-interest-inherent-in-a-corporation-paying-for-its-employees-counsel-a-better-model-for-preventing-and-addressing-corporate-crime (“Currently, a single attorney, as in *Wood*, may often represent both the corporation[] and the corporation’s employees.”).

65. Robert A. Armitage, *Understanding the America Invents Act and Its Implications for Patenting*, 40 AIPLA Q. J. 1, 9-10 (2012).

66. *First Inventor to File (FITF) Resources*, U.S. PAT. & TRADEMARK OFF. (Feb. 5, 2016, 11:01 AM), www.uspto.gov/patents/first-inventor-file-fitf-resources; see also Doody, *supra* note 20, at 94 (“That means an inventor who . . . file[d] a patent [in the United States] and got the right as an inventor first to invent could be superseded in the international market by someone who happened to catch that invention on the Internet, or elsewhere, and file it in China first.”).

any ground that could be raised under § 282(b)(2)”⁶⁷ The AIA also amended § 256, a statute outlining when incorrect patent inventorship could be corrected, by removing the requirement that any inaccuracies in the original patent inventorship claims did not stem from “deceptive intent.”⁶⁸ Many of these changes were meant to align U.S. patent laws with European standards and facilitate an easier patent prosecution and litigation process.⁶⁹

Many amendments, including amendments to § 256 under the AIA which were meant to ease “correction of prosecution errors and reduc[e] litigation burdens,” were, at best, questionably effective.⁷⁰ The AIA, however, was not the first time in U.S. history where the provisions of § 256 were worsened for a non-joined inventor. It is important to understand the history of changes to § 256 to realize the true impact of the AIA on the correction of inventorship.

Before the AIA, § 256 was thought of as a “‘savings provision’ to prevent invalidation of patents due to good faith inventorship errors.”⁷¹ In 1983, it explicitly stated that the error of misjoinder must occur “without any deceptive intention” and non-joinder must occur without any deceptive intention “on his part.”⁷² Though the phrasing is awkward, *Rival Mfg. Co. v. Dazey Prod. Co.* stated that “on his part” must “both

67. *Post Grant Review*, U.S. PAT. & TRADEMARK OFF. (Sept. 4, 2020, 1:11 PM), www.uspto.gov/patents/ptab/trials/post-grant-review.

68. Katherine E. White, “*There’s a Hole in the Bucket*”: *The Effective Elimination of the Inequitable Conduct Doctrine*, 11 JOHN MARSHALL REV. INTELL. PROP. L. 716, 737 (2012).

69. *See, e.g.*, Doody, *supra* note 20, at 122 (“I first supported an amendment which would have repealed best mode in full. American patent law requires that a patent application, ‘set forth the best mode contemplated by the inventor of carrying out his invention’ at the time the application is filed. But providing the best mode at the time of application is not a requirement in Europe or in Japan or in any of the rest of the world, and it has become a vehicle for lawsuit abuse.”).

70. Orion Armon, *The Leahy-Smith America Invents Act*, COOLEY LLP, www.law.berkeley.edu/files/bclt_New_Patent_Law_Explained_Panel_1-Litigation_Changes.pdf 1, 14-16 (last visited July 25, 2022); Robert A. Armitage, *The Role of the America Invents Act in Ending the Plague of “Inequitable Conduct” Allegations*, 4 LANDSLIDE 1, 1, 58 (2012); *see also* Doody, *supra* note 20, at 658 (“[W]hen more legally sophisticated investors evaluate the patent for potential investment or purchase, these minor flaws in prosecution [vis-à-vis in-house counsel, who is often unfamiliar with “all of the sharp corners and pitfalls of the inequitable conduct doctrine”] can deter the investor from purchasing or funding the development of an invention. An investor would not risk spending hundreds of millions of dollars to develop a product if a potential inequitable conduct attack may wipe out the whole investment.”); *id.* at 426, 429, 657.

71. Flora M. Amwayi et al., *Correcting Inventorship During Litigation: When, Why, How*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP 1, 1 (July 31, 2012), www.finnegan.com/en/insights/articles/correcting-inventorship-during-litigation-when-why-how.html.

72. 2 DONALD S. CHISUM, *Chisum on Patents* § 2.04[2][b] (2022); *Modine Mfg. Co. v. Allen Group Inc.*, No. C-85-6946, 1987 WL 123993, *9 n.5, *11 (N.D. Cal. 1987) (“While the statute seems to focus only on the lack of deceptive intent of the inventor not named, the [US]PTO rules provide that all the inventors sought to be named must lack deceptive intent.”).

logically and as a matter of ordinary construction, be understood to mean on the part of the inventor(s), their employers, or their privies in interest.”⁷³ This meant that, if an inventor deceptively joined or left another inventor off the patent, the patent could be held invalid.⁷⁴

The burden to prove misjoinder to invalidate a patent is higher than the burden to correct inventorship under § 256.⁷⁵ Those seeking to invalidate a patent must prove misjoinder or nonjoinder through clear and convincing evidence, whereas those seeking to correct inventorship and leave the patent intact must only meet the preponderance of the evidence standard.⁷⁶ The inventors and assignee of the patent in question likely would prefer the patent to remain valid, leaving the decision to pursue invalidation or inventorship correction up to the wronged, non-joined inventor’s discretion.⁷⁷

Section 256 provides “two separate avenues for correction of an inventorship mistake in an issued patent”: (1) correction through the USPTO or (2) correction through court order.⁷⁸ If an applicant pursues correction through the USPTO, the “court may still review the propriety of the change in inventorship” but that review will be under a presumption of validity of the correction certificate.⁷⁹ This avenue is only available when all parties relevant in the patent inventorship

73. *Rival Mfg. Co. v. Dazey Prods. Co.*, 358 F. Supp. 91, 102 (W.D. Mo. 1973) (“Although the requirement of 35 U.S.C.S. § 256 that a correctable defect must be without deceptive intention is phrased in terms of “on his part,” such reference must, both logically and as a matter of ordinary construction, be understood to mean on the part of the inventors, their employers, or their privies in interest, including any attorneys acting on behalf of the applicant for the patent in question. The few authorities that have considered and applied [§] 256 to particular facts clearly do not appear to have limited their factual inquiry concerning conduct only to an omitted inventor.”).

74. I note that this can be perceived as a high burden, for all inventors to be acting fairly to achieve a patent. The punishment of one actor resulting in harm to other innocent actors is a common practice in law throughout the world. For example, a person may be required to pay a substantial judgment, resulting in financial harm to their spouse and children who did not participate in the action leading to the judgment.

75. *NuClimate Air Quality Sys. v. M&I Heat Transfer Prods.*, No. 5:08-CV-0317, 2008 U.S. Dist. LEXIS 56708, at *27-28 (N.D.N.Y. July 24, 2008) (the burden for correction to prove misjoinder must be shown by clear and convincing evidence); *Jamesbury Corp. v. United States*, 518 F.2d 1384, 1395 (Ct. Cl. 1975) (“[T]here is a presumption that the inventors named in an issued patent are correct.”).

76. 2 CHISUM, *supra* note 72, at § 2.04[7][c][ii][A] (citing *Iowa State Univ. Rsch. Found. v. Sperry Rand Corp.*, 444 F.2d 406, 410 (4th Cir. 1971)).

77. Patents can provide money and attribution benefits, meaning those currently benefitting from a patent would usually like to continue receiving those benefits. However, the wronged inventor may choose between receiving those benefits as well or denying others continued benefit.

78. 2 CHISUM, *supra* note 72, at § 2.04[2][b][i]-[ii].

79. *Id.* § 2.04[2][b][i] (citing *Consol. Aluminum Corp. v. Foseco Int’l Ltd.*, No. 82-CV-2792, 1988 WL 391250, at *47 (N.D. Ill. 1988), *aff’d*, 716 F. Supp. 316, 318 (N.D. Ill. 1989), *aff’d*, 910 F.2d 804, 806 (Fed. Cir. 1990); *Borden, Inc. v. Occidental Petroleum Corp.*, 381 F. Supp. 1178, 1207 (S.D. Tex. 1974)).

correction process (meaning all inventors and the assignee) agree that the inventorship should be corrected in accordance with the § 256 certificate.⁸⁰ Applicants pursue the second avenue, correction through court order, when the parties disagree about the desired outcome.⁸¹ This avenue is often used when the non-joined inventor(s) decides to seek patent invalidation, rather than correction.⁸²

However, *Stark v. Advanced Magnetics* – a case where an inventor wanted to establish that he was a sole or joint inventor of a series of patents – effectively and improperly eliminated the invalidation choice in § 256 for wronged, non-joined inventors.⁸³

A. *Stark v. Advanced Magnetics*⁸⁴

Radiologist Dr. David Stark developed magnetic resonance imaging (“MRI”) technologies with Advanced Magnetics, Inc. (“AMI”).⁸⁵ However, he was not named as an inventor on any of the resulting patents and sought correction.⁸⁶ The Federal Circuit allowed him to do so, saying that his allegations of fraud against the named inventors “have implications under the inequitable conduct doctrine” but “[do] not preclude him from seeking correction of inventorship.”⁸⁷ Therefore, Dr. Stark was able to achieve the relief he sought: receiving inventorship recognition on the patent.⁸⁸

80. *Display Rsch Lab’ys, Inc. v. Telegen Corp.*, 133 F. Supp.2d 1170, 1173-74 (N.D. Cal. 2001).

81. *See Pannu v. Iolab Corp.*, 155 F.3d 1344, 1350 (Fed. Cir. 1998) (“The error of omitting inventors or naming persons who are not inventors shall not invalidate the patent in which such error occurred if it can be corrected as provided in 35 U.S.C. § 256. The court before which such matter is called in question may order correction of the patent on notice and hearing of all parties concerned and the Commissioner shall issue a certificate accordingly. 35 U.S.C.[] § 256 is a savings provision. If a patentee demonstrates that inventorship can be corrected as provided for in 35 U.S.C.[] § 256, a district court must order correction of the patent, thus saving it from being rendered invalid.”); 35 U.S.C. § 256 (2018).

82. *See Pannu*, 155 F.3d at 1350-51.

83. *Stark v. Advanced Magnetics, Inc.*, 119 F.3d 1551, 1552 (Fed. Cir. 1997) (“Dr. David Stark, a physician specializing in radiology, collaborated with Advanced Magnetics, Inc. (“AMI”) in developing magnetic resonance imaging (“MRI”) technologies.”).

84. 119 F.3d 1551 (Fed. Cir. 1997).

85. *See id.* at 1552 (“This work resulted in six patents issued between September 1988 and April 1992. The patents include U.S. Patent No. 4,770,183 (“the ‘183 patent”) and five others. This court set forth a more detailed recitation of the factual background of these patents in *Stark v. Advanced Magnetics, Inc.*, 29 F.3d 1570, 1572-73, 31 U.S.P.Q.2D (BNA) 1290, 1291-92 (Fed. Cir. 1994). Stark was not named as an inventor on any of the patents.”).

86. *See id.* (“Stark’s complaint requested correction of inventorship under 35 U.S.C.[] § 256. Stark also requested damages and injunctive relief under Massachusetts tort and contract law.”); *see also* 35 U.S.C. § 256 (2018).

87. *Stark*, 119 F.3d at 1552.

88. *See id.* I note that, if Stark sought to invalidate the patent, he likely would have needed to raise the allegation of inequitable conduct.

The outcome of *Stark* appeared to be a fairytale ending for a wronged inventor. The outcome in this case certainly favored Stark, but at the expense of other wronged inventors who sought a different remedy.⁸⁹ Stark was recognized as an inventor on a still-viable patent and achieved this recognition without needing his fellow inventors to attest to the equity of their conduct.⁹⁰ However, though the initial result favored Dr. Stark—in that it allowed a wronged, non-joined inventor to be named as a patent inventor under § 256 regardless of the deceit of their fellow inventors—the result was unhelpful for a wronged inventor seeking to invalidate the patent.⁹¹

The patents now bearing Stark's name as a rightful inventor are likely unenforceable and, therefore, monetarily worthless.⁹² Under the “[o]ne bad apple spoils the entire barrel” doctrine of inequitable conduct, the misdeeds of his co-inventors “can affect the property rights of an otherwise innocent individual.”⁹³

As the Federal Circuit later confirmed in *Frank's Casing Crew & Rental Tools, Inc. v. PMR Technologies, Ltd.*, “inequitable conduct by named inventors in failing to name [a third person] as an inventor[]” rendered the patent unenforceable, even though the third person committed no inequitable conduct.⁹⁴ Essentially, the Federal Circuit created a doctrine where inventors like Stark could pursue an expensive litigation route to be a named inventor, only to declare that the patent was unenforceable.

This is nonsensical and, when examining the reasoning behind the *Stark* outcome, the Federal Circuit clearly eliminated a true and intentional option for resolution of nonjoinder contemplated in § 256:

89. *See id.*

90. *See id.* at 1554-55 (ruling that only the inventor seeking correction of inventorship must demonstrate their lack of deceptive intent).

91. *See id.* at 1555-56 (“[P]atent[s] may be unenforceable for inequitable conduct when any co-inventors are omitted with deceptive intent[.]. The standards for inequitable conduct are not likely to permit enforcement of any patent procured by deceiving the United States Patent and Trademark Office....”) (citing *Burroughs Wellcome Co. v. Barr Lab'ys., Inc.*, 40 F.3d 1223, 1227 (Fed. Cir. 1994)).

92. *See Stark*, 119 F.3d at 1552.

93. *Id.* at 1556. I note that this can—and does—negatively impact an inventor who was originally overlooked as an inventor during the initial patent process. This is especially true when the overlooked inventor had little if any power to fight for name recognition during the initial patent application process. *See, e.g.,* Jordana Goodman, *Ms. Attribution: How Authorship Credit Contributes to the Gender Gap*, 23 *YALE J. L. & TECH.* 1, 8-9 (forthcoming Spring 2023). In ruling in favor of the wronged inventor, the court in *Stark* appears to have attempted to right the balance. *Stark v. Advanced Magnetics, Inc.*, 119 F.3d 1551, 1552 (Fed. Cir. 1997). However, because the inequitable conduct rule is still present—and remains present after the AIA—the overlooked inventor remains powerless to correct the conduct of her fellow actors. *See infra* Section IV.B.3.

94. *Frank's Casing Crew & Rental Tools, Inc. v. PMR Techs., Ltd. & PMR Servs., Inc.*, 292 F.3d 1363, 1366 (Fed. Cir. 2002).

allowing wronged inventors an easy way to invalidate a patent without bringing a count of inequitable conduct to court.⁹⁵

First, when interpreting the legislative history of § 256, the Federal Circuit makes an implicit error: the court says that the legislative history “strongly suggests that congress intended to permit correction of inventorship, without regard to the conduct of the named inventor, as long as there was no deceptive intention *on the part of the true inventor*.”⁹⁶ The court then cites “H.R. Rep. No. 97-542, 97th Cong., 2d Sess. (1982) (‘[T]he commissioner must be assured of the presence of innocent error, *without deceptive intention on the part of the true inventor or inventors*, before permitting a substitution of a true inventor’s name.’).”⁹⁷

Though this may allow for substitution of an incorrect inventor for a correct inventor, the very language used in Congress does not allow for one inventor to be restored when another true inventor acted deceptively.⁹⁸ The Congressional record states that the absence of deceptive intent must be shown for the “true inventor or inventors” in the aggregate.⁹⁹ If a true inventor left another co-inventor off a patent, Congress did not intend for inventorship to be correctable under § 256.

The Federal Circuit continued to misinterpret § 256 on the basis of a comma, concluding in *Stark* that “the statute allows correction . . . in those nonjoinder cases [only] where the unnamed inventor is free of deceptive intent.”¹⁰⁰

The legislative history suggested that § 256 (correction of named inventors on a patent) and § 116 (correction of named inventors on a patent application) were meant “to be interpreted in a uniform manner.”¹⁰¹ Section 116 reads as follows: “Whenever through error a person is named in an application for patent as the inventor, or through error an inventor is not named in an application, and such error arose *without any deceptive intention on his part*, the Director may permit the application to be amended accordingly.”¹⁰²

Section 256 (1994) reads as follows:

Whenever through error a person is named in an issued patent as the inventor, or through error an inventor is not named in an issued patent

95. *Stark*, 119 F.3d at 1556.

96. *Id.* at 1554 (emphasis added).

97. *Id.*; H.R. REP. NO. 97-542, at 773 (1982), as reprinted in 1982 U.S.C.C.A.N. 765, 773.

98. H.R. REP. NO. 97-542, at 773 (1982), as reprinted in 1982 U.S.C.C.A.N. 765, 773.

99. *Id.*

100. *Stark*, 119 F.3d at 1555.

101. *Id.* (“[T]o the extent that the language of sections 116 and 256 lead[s] to different and, arguably, inconsistent results, a situation exists which only Congress has the power to resolve.”); see 2 CHISUM, *supra* note 72, at § 2.04.

102. 35 U.S.C. § 116 (2006) (emphasis added).

and *such error arose without any deceptive intention on his part*, the Commissioner may, on application of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issued a certificate correcting such error.¹⁰³

The court determined that, because there was no comma before “and such error arose” in § 256, but there was a comma before “and such error arose” in § 116, only nonjoinder and not misjoinder cases require lack of deceptive intent in issued patents.¹⁰⁴ However, both nonjoinder and misjoinder cases do require lack of deceptive intent in pending applications.¹⁰⁵ When combined with the above determination regarding the extent of deceptive intent, this effectively means that the deceptive intent of the joined inventors becomes irrelevant to a § 256 inquiry under *Stark*.

This decision is sealed as nonsensical when compared to the procedure to correct inventorship on an issued patent, outlined in 37 C.F.R. § 1.324.¹⁰⁶ As quoted in *Stark*, the rule states “[w]henever a patent is issued and it appears that the correct inventor or inventors were not named through error *without deceptive intention on the part of the actual inventor or inventors*, the Commissioner may . . . issue a certificate naming only the actual inventor or inventors.”¹⁰⁷ This rule also states that there cannot be “deceptive intention on the part of the actual inventor or inventors” and that those non-deceptive inventors can be the only ones named on the final certificate if the inventorship is corrected under 37 C.F.R. § 1.324, the counterpart to § 256.¹⁰⁸ Therefore, according to the legislation, when one named inventor excluded another with deceptive intent, the patent cannot be corrected.

The Federal Circuit disregarded legislative history, text of corresponding statutes, and judicial history in a linguistic acrobatic exercise to allow *Stark* to receive attribution for his work, knowing full well that this attribution cannot yield further royalty rewards if the inequitable conduct of Stark’s coworkers invalidates the patents.¹⁰⁹ In so doing, the Federal Circuit created a system where an inventor can use either the USPTO or the court system to achieve name recognition on a quasi-valid patent, while at the same time, that inventor must pursue a

103. 35 U.S.C. § 256 (1994) (emphasis added).

104. *Stark v. Advanced Magnetics, Inc.*, 119 F.3d 1551, 1555 (Fed. Cir. 1997).

105. *See id.*

106. 37 C.F.R. § 1.324 (2020).

107. *Stark*, 119 F.3d at 1556 (citing 37 C.F.R. § 1.324) (1996) (emphasis added).

108. 37 C.F.R. § 1.324 (1996).

109. *Stark*, 119 F.3d at 1556 (“While irrelevant to the question of correcting inventorship, Stark’s allegations of fraud may . . . have implications under the inequitable conduct doctrine.”). The *Stark* court clarified that it used the language “may” only because it had “no factual findings to reach any conclusion[s] [of fraud].” *See id.*

lengthy litigation process, under the inequitable conduct doctrine, to invalidate a patent.¹¹⁰ The inventor can no longer pursue patent invalidation under § 256 if they were without fault throughout the patent inventorship process.

B. AIA Amendments to Section 256

Instead of restoring the choice to invalidate or receive attribution outlined in § 256, Congress implicitly codified the decision to remove the option in the AIA.¹¹¹ The option to invalidate a patent under inequitable conduct is still available.¹¹² However, not only did the AIA delete any mention of such availability in § 256, but it also codified a system where the only way to seek the remedy of invalidation is in court.¹¹³

The amendments to § 256 under the AIA are shown below:

Whenever through error a person is named in an issued patent as the inventor, or through error an inventor is not named in an issued patent, [*and such error arose without any deceptive intention on his part*]¹¹⁴ the Director may, on application of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issue a certificate correcting such error.

The error of omitting inventors or naming persons who are not inventors shall not invalidate the patent in which such error occurred if it can be corrected as provided in this section. The court before which such matter is called in question may order correction of the patent on notice and hearing of all parties concerned and the Director shall issue a certificate accordingly.¹¹⁵

After the AIA, the reason for the originally incorrect inventorship is not relevant to a § 256 request for correction inquiry.¹¹⁶ This streamlined

110. See *infra* Part III.B.

111. Compare 35 U.S.C. § 256 (1994), with 35 U.S.C. § 256 (2012).

112. *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1377 (Fed. Cir. 2020) (“It is the inequitable-conduct rules that provide a safety valve in the event of deceit.”) (citing *Stark v. Advanced Magnetics, Inc.*, 119 F.3d 1551, 1555-56 (Fed. Cir. 1997)).

113. 6A DONALD S. CHISUM, *Chisum on Patents* § 19.03 (2022) (“At one time, the Patent and Trademark Office’s practice was to reject pending original or reissue patent applications if it found inequitable conduct, but, in 1988, it ceased that practice.”).

114. The bracketed and italicized text does not appear in the AIA version of the statute.

115. 35 U.S.C. 256 (Pre-AIA) *Correction of Named Inventor*, FORSGREN FISHER MCCALMONT DEMAREA TYSVER LLP (last updated Jan. 2018), [www.bitlaw.com/source/35usc/256_\(pre%E2%80%91AIA\).html](http://www.bitlaw.com/source/35usc/256_(pre%E2%80%91AIA).html).

116. The amendments to 35 U.S.C. § 251 and § 256 make it clear that any demonstrated inventorship error can be corrected, either by a certificate of correction, a reissue application, or by a suit under § 256 in Federal court. See, e.g., *Vapor Point, LLC v. Moorhead*, 832 F.3d 1343, 1348-49 (Fed. Cir. 2016) (ruling on an action to correct inventorship brought under § 256); see also

the correction process from an administration and pre-litigation standpoint, no longer requiring statements regarding the lack of deceptive intent.¹¹⁷ To correct inventorship on an issued patent, the USPTO used to *require statements* “. . . from each person being added as an inventor and from each person being deleted as an inventor that the error in inventorship *occurred without deceptive intent*[. . .]” along with an applicant’s oath in support of the change, and written consent from assignees.¹¹⁸ Under the AIA, any error in inventorship can be corrected under § 256 because “error” is simply “the incorrect listing of inventors” and *does not require proof of an honest mistake*.¹¹⁹

This did not significantly reduce the paperwork required for inventorship correction. 37 C.F.R. § 1.324 lays out the procedure to correct inventorship in a patent pursuant to § 256.¹²⁰ Like the pre-AIA, requests to correct inventorship under the AIA must be accompanied by “[a] statement from each person who is being added as an inventor and each person who is currently named as an inventor either agreeing to the change of inventorship or stating that [they have] no disagreement in regard to the request change[.]” as well as a statement from all assignees and a fee.¹²¹ The AIA only eliminated the requirement that each person must also state that the error was made without deceptive intent.¹²² If an inventor refuses to sign such a statement, their employer (the party showing sufficient proprietary interest) may sign on their behalf.¹²³

Kevin C. McGrath & Thomas D. Kohler, *Can Inventorship Be Challenged in a PGR Proceeding?*, DOWNS RACHLIN MARTIN PLLC (Dec. 5, 2016), www.drm.com/resources/can-an-inventorship-be-challenged-in-a-pgr-proceeding.

117. *See Fixing Inventorship Problems in U.S. Patent Applications and U.S. Patents*, *supra* note 38; *see also* 37 C.F.R. § 1.48(a) (2011) (showing pre-AIA law); 37 C.F.R. § 1.48(a) (2022) (showing AIA inventorship law).

118. 37 C.F.R. § 1.48(a)(2) (2011) (emphasis added); *see Fixing Inventorship Problems in U.S. Patent Applications and U.S. Patents*, *supra* note 38; *see also* 37 C.F.R. § 1.48(a)(1)-(a)(3) (2011).

119. 37 C.F.R. § 1.48(a) (2022) (emphasis added); *see Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1376-77 (Fed. Cir. 2020); *see also Stark v. Advanced Magnetics*, 119 F.3d 1551, 1554-56 (Fed. Cir. 1997).

120. 37 C.F.R. § 1.324 (2020).

121. *Id.* The fee is set forth in § 1.20(b). *Id.*

122. *Fixing Inventorship Problems in U.S. Patent Applications and U.S. Patents*, *supra* note 38.

123. 37 C.F.R. § 1.64 (2020) (“An applicant under § 1.43, 1.45 or 1.46 may execute a substitute statement in lieu of an oath or declaration under § 1.63 if the inventor is deceased, is under a legal incapacity, has refused to execute the oath or declaration under § 1.63, or cannot be found or reached after diligent effort.”). The same pattern follows under 35 U.S.C. § 251, when an assignee of the patent interest is filing for a reissue to correct inventorship instead of a certificate of correction. 35 U.S.C. § 251 (2018); *see also* Jessica L. Roberts & Adriana L. Burgy, *Reissue Basics*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP (July 6, 2017), www.finnegan.com/en/insights/blogs/prosecution-first/reissue-basics.html; JEROME ROSENSTOCK, *PATENT INTERFERENCE PRACTICE HANDBOOK* § 8.05[A] (Aspen L. & Bus. 1998). Before the AIA, the option to reissue the patent due to improper inventorship was unavailable to an assignee whose

On its surface, the overall changes to § 256 and similar changes to 35 U.S.C. § 251 (“§ 251”) seem to facilitate an easier path to correcting inventorship for the patent owner. An owner needs one fewer statement from each inventor and no longer fears allegations of deceptive intent invalidating their own patent during the correction process.¹²⁴ This is likely why university and technology transfer offices advocated for removing the deceptive intent burden since at least 2005.¹²⁵ They, like other companies attempting to profit off of their employee-created inventions, are more likely to end the procedure of correcting patent inventorship with a valid patent when the AIA rules apply.¹²⁶ Other inventors listed on the patent also benefit from this change, as the title of inventor and all attribution-related reputation bonuses associated with being named on a patent, are more stable after the AIA.

Moreover, the elimination of 35 U.S.C. § 102(f) (“§ 102(f)”), which stated in relevant part: “[a] person shall be entitled to a patent *unless* . . . he did not himself invent the subject matter sought to be patented,” shifted the burden of inventorship proof from a certainty to an uncertainty.¹²⁷ When Congress eliminated this clause from the AIA, they believed they were eliminating it out of redundancy, claiming that the Constitution and 35 U.S.C. § 101 (“§ 101”) both “specify that a patent may only be obtained by the person who engages in the act of inventing.”¹²⁸ The Constitution allows inventors to secure “for limited

error arose out of a deceptive intention. *See Egenera, Inc.*, 972 F.3d at 1377 n.4 (“For instance, through the AIA, deceptive-intention language was removed from the reissue provision, 35 U.S.C. § 251, as well as the analogue of § 256 that applies to patent application . . .”). After Congress passed the AIA, an assignee of the entire patent interest can correct inventorship under 35 U.S.C. § 251 without proving that the original error was made in good faith. *See* 35 U.S.C. § 251 (2018). Moreover, because “. . . a reissue application does not seek to enlarge the scope of the claims of the original patent, . . .” the assignee can file for the correction without any statement from the inventor regarding the original error. *See* 37 C.F.R. § 1412.04 (2020); 37 C.F.R. § 1.172 (2020); *see also* Amwayi et al., *supra* note 71.

124. *See Fixing Inventorship Problems in U.S. Patent Applications and U.S. Patents, supra* note 38 (explaining how applicants were required to file statements pre-AIA, from each person added and/or deleted as an inventor “stating that the error ‘occurred without deceptive intention on his or her part’,” but that “[t]hese statements are no longer required” under the AIA).

125. WILLIAM H. MANZ, PATENT REFORM: A LEGISLATIVE HISTORY OF THE LEAHY-SMITH AMERICA INVENTS ACT, H.R. DOC NO. 67-157, at S1378 (2012) (“These changes were first proposed in section 5 of the original Patent Reform Act of 2005, H.R. 2795, 109th Congress, and have been advocated by universities and their technology-transfer offices.”).

126. *See, e.g., America Invents Act (AIA) Frequently Asked Questions*, U.S. PATENT & TRADEMARK OFF., www.uspto.gov/patents/laws/america-invents-act-aia/america-invents-act-aia-frequently-asked#type-browse-faqs_2960 (last updated Mar. 6, 2019, 11:17 AM) (noting the plans for making electronic filing system corrections easier, in addition to the AIA’s removal of the deceptive intention language from correction requirements under 35 U.S.C. §§ 251, 256).

127. 35 U.S.C. § 102(f) (2006) (emphasis added); 35 U.S.C. § 256 (2012).

128. Joseph Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435, 451 (2012).

times . . . the exclusive right to their . . . discoveries.”¹²⁹ Section 101 says that “whoever invents or discovers any new [invention] may obtain a patent therefor.”¹³⁰ This language is paralleled in 35 U.S.C. § 171 (“§ 171”), describing entitlement for design patents.¹³¹

The “unless” language traces its origin to *In re Warner*, a 1967 decision stating that the language “clearly places a burden of proof on the patent office which requires it to produce the factual basis for its rejection.”¹³² Removal of that language seems to also remove the clear burden of proof as to which party has the burden to show proper inventorship in proceedings at the USPTO.

Viewed in a vacuum, § 256 changed from “a ‘savings provision’ to prevent invalidation of patent due to good faith inventorship errors” to a procedural statement, saying that, for any reason, inventorship can be corrected.¹³³ To the average inventor who was left off of a patent due to questionably deceptive practices, this appears to create one fewer avenue of remedy to pursue and, in combination with the elimination of § 102(f), the burdens of proof to pursue such an avenue are even more unclear.

Instead of deceptively non-joined inventors being able to either 1) negotiate with their employers (by asking them to be rightfully named as patent inventors in exchange for a statement saying that all inventors did not act deceptively) or 2) sue to invalidate their patents (for the actions of their fellow inventors in acting deceptively as against them), the wronged inventor now only appears to have the former avenue under the language and wording of § 256.¹³⁴ This, like removing § 102(f), disadvantages those who are not as educated about their patent rights and further muddies the waters of U.S. patent law because “deceptive intent”—now subsumed by “inequitable conduct”—can still invalidate a patent under the AIA.¹³⁵

The question then arises: why would lay people’s abilities to infer their patent rights be important in inventorship disputes, especially if they had access to a patent attorney at their respective companies? As stated above, when applying for a patent, most employees do not file

129. U.S. CONST. art. I, § 8, cl. 8.

130. 35 U.S.C. § 101 (1952).

131. 35 U.S.C. § 171 (2012).

132. *Matal*, *supra* note 128, at 452 (citing *In re Warner*, 379 F.2d 1011, 1016 (C.C.P.A. 1967)).

133. *Amwayi et al.*, *supra* note 71.

134. *See supra* notes 16–18 and accompanying text.

135. *See* 2 CHISUM, *supra* note 72, at § 2.04 (“The purpose of the qualification as to deceptive intent is similar to that of the doctrine of fraudulent procurement, which is also referred to as ‘inequitable conduct.’”); *see also* 6 CHISUM, *supra* note 113, at § 19.03 (“An applicant for a patent is under a duty of candor A breach of that duty constitutes ‘inequitable conduct’ or, in severe form, ‘fraud.’”).

with their own attorneys or even under the advisement of their own attorneys.¹³⁶ Generally, a company hires a patent attorney to file a patent application in the course of representation.¹³⁷ The attorney represents the interests of the company and since, most of the time, all inventors believe it is in their best interest to be named on a patent (or in the more likely scenario, by employment contract, their belief is irrelevant to the patent process), there are usually few objections to using a singular attorney.¹³⁸ Employee-inventors likely do not believe that they need their own, external attorneys during this process, because they believe that their interests are being adequately protected through corporate counsel.¹³⁹ At the time of applying for a patent, that is likely true, especially for those inventors who are included in the patent application process. However, that is unlikely to be true for those inventors who are not included in the initial process.¹⁴⁰ For those non-joined inventors, clear notice of rights in lay language becomes critical.¹⁴¹

In other words, amending § 256 did little to help the deceptively non-joined inventor originally left off the patent. This did not create a “more objective-evidence-based system that will be much cheaper to litigate and more efficient to administer.”¹⁴² This failed to give notice to the non-joined inventor(s) that they had a right to pursue invalidation of the patent, and that the inequitable conduct of their co-inventors likely rendered the patent economically “worthless” after a proceeding under

136. See *supra* note 61 and accompanying text.

137. See, e.g., ANDY GIBBS & BOB DEMATTEIS, *ESSENTIALS OF PATENTS* 230-31 (John Wiley & Sons, Inc., 2003) (“During the term of employment, an employee will receive compensation in return for [their] contributions and work, often exemplified as intellectual property or intellectual capital. Patent counsel, in working with HR, must ensure that the company captures the intellectual capital produced by the employees and that this knowledge contribution remains with the company after the employee leaves.”).

138. *Id.* at 231.

139. See, e.g., Donald A. Degnan & Libby A. Huskey, *Inventorship: What Happens When You Don't Get it Right?*, HOLLAND & HART LLP 1, 3 (2006), www.hollandhart.com/articles/InventorshipWhatHappens.pdf (“[I]f an employee invents on company time and with company resources . . . the employer does retain a nontransferable, nonexclusive license to practice the invention royalty-free.”); see also *id.* at 2, 4.

140. *Id.* at 4.

141. See Dianna G. El Hioum & Gregory Logan, *USPTO Has Ways to Improve Patent Diversity and Inclusion*, BL (Oct. 13, 2021, 4:01 AM), news.bloomberglaw.com/ip-law/uspto-has-ways-to-improve-patent-diversity-and-inclusion. The USPTO stated that “increased access to financial and educational resources” may help to close the racial and gender patent gaps in the United States. *Id.* If disparate understanding of rights and how to pursue them causes a patent gap, language that is unclear even from an attorney’s perspective will likely further contribute to the inventorship gaps already in existence. *Id.* By further muddying the waters of patent law, the AIA did not protect the interests of first time, minority, and female inventors—or, in general, the inventors who traditionally lack patent education equal to their privileged peers. *Id.*

142. Doody, *supra* note 20, at 475.

37 C.F.R. § 1.56.¹⁴³ This failed to restore their rights to pursue invalidation through an inexpensive procedure at the USPTO, instead of through litigation.¹⁴⁴ Finally, because of these failures, the AIA deprives deceptively non-joined inventors of a full review under § 256. If there was “deceptive intent,” parties could not undergo a § 256 correction.¹⁴⁵ The certificate under § 256 is presumed valid in the court system.¹⁴⁶ Lack thereof may prove an asset to bolster an allegation of inequitable conduct and invalidation litigation proceedings, should an inventor choose to attempt to invalidate a patent pursuant to 37 C.F.R. § 1.56.

37 C.F.R. § 1.56 discusses the “[d]uty to disclose information material to patentability.”¹⁴⁷ It explains that:

[E]ach individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section.¹⁴⁸

It further states that “no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct.”¹⁴⁹ The inventors and the attorneys responsible for filing and prosecuting the patent application must disclose all information material to patentability – including inventorship.¹⁵⁰

Each inventor must be included in the patent application process, not only because patents must disclose the proper inventorship, but also because inventors are obligated to disclose “all information known to that individual to be material to patentability.”¹⁵¹ In other words, each inventor is responsible for including information disclosure statements

143. See *id.* at 608. I note that, until a competitor invalidates the patent in question, the attribution that inventors receive for being named on a patent are very real—and can be very economically valuable. See Christopher Jon Sprigman et al., *What’s a Name Worth: Experimental Tests of the Value of Attribution in Intellectual Property*, 93 B.U.L. REV. 1389, 1391 (2013).

144. 37 C.F.R. § 1.20 (2022) (noting that the fee for correcting inventorship in a patent is \$160).

145. See *Winbond Elec. Corp. v. U.S. Int’l Trade Comm’n*, 262 F.3d 1363, 1371 (Fed. Cir. 2001).

146. See *id.*; see also *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1291 (Fed. Cir. 2011) (en banc).

147. 37 C.F.R. § 1.56 (2022).

148. 37 C.F.R. § 1.56 (2020).

149. *Id.* This duty extends beyond issuance. See *Therasense, Inc.*, 649 F.3d at 1287.

150. 37 C.F.R. § 1.56 (2020). A patent may be unenforceable if a “person with a duty of disclosure . . . failed to disclose material information concerning a matter . . . before the Office; and . . . in the absence of such deception, the Office . . . would . . . have made a prima facie finding of unpatentability.” H.R. REP. NO. 110-314, at 18 (2007).

151. 37 C.F.R. § 1.56 (2022).

with all information they know will be relevant to patentability of the claims in the application.¹⁵² Inventors that are not included in the patent process do not have a duty to disclose all relevant information to the USPTO.¹⁵³ The USPTO may perceive that, by all included inventors signing inventorship declarations, the inventors agreed to pursue the patent application process.¹⁵⁴ Such perception may not be true if all true inventors were included.

This is all in addition to the original materiality issue: that incorrect inventorship by itself renders a patent invalid if it cannot be corrected.¹⁵⁵ With the bifurcation of inventorship correction procedures and inequitable conduct in the form of deceptive intent, the patent assignee (or all inventors currently named on the patent) can seek and obtain correction of inventorship through certification and reissue at the USPTO, with no input from the non-joined inventor.¹⁵⁶ The wronged, non-joined inventor who would prefer to pursue invalidation of the patent (because they view it as economically worthless, given that their co-inventors' inequitable conduct will invalidate the patent as soon as a competitor discovers such conduct) must go through an infinitely harder channel to pursue invalidation: the court system.¹⁵⁷

The invalidation channel is even further hidden from view after the AIA amendments than before the AIA. Like the amendments to § 102(f) discussed above, a non-joined inventor is at a significant legal knowledge disadvantage when encountering the inequitably acquired patent.¹⁵⁸ In a company setting, they may approach the company's patent

152. See Vic Lin, *What is an Information Disclosure Statement or IDS?*, PAT. TRADEMARK BLOG, www.patenttrademarkblog.com/what-is-an-ids (last visited July 25, 2022).

153. See *id.*

154. See *Declaration (37 CFR 1.63) for Utility or Design Application Using an Application Data Sheet (37 CFR 1.76)*, *supra* note 55.

155. See 35 U.S.C. § 256 (2018); see also *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1376 (Fed. Cir. 2020).

156. Greg Grissett, *Addressing Section 101 Issues Through Reissue*, JD SUPRA (Sept. 16, 2014), www.jdsupra.com/legalnews/addressing-section-101-issues-through-re-59758. The assignee may seek such correction if the non-joined inventor assigned all patent rights to their employer. See Madhuri Roy, *Who Owns What: Assignment and Ownership of Patents and Applications*, COOLEY LLP (Oct. 8, 2020), www.cooleygo.com/assignment-and-ownership-of-patents-and-applications.

157. See *Amway*, *supra* note 71. Currently, *inter partes* review proceedings are limited to “review the patentability of one or more claims in a patent only on a ground that could be raised under §§ 102 or 103, and only on the basis of prior art consisting of patents or printed publications.” *Inter Partes Disputes*, U.S. PAT. & TRADEMARK OFF. (Apr. 12, 2013, 2:39 PM), www.uspto.gov/patents/laws/america-invents-act-aia/inter-partes-disputes. Furthermore, inequitable conduct cannot be brought under a post-grant review; see also Mark J. Feldstein et. al., *Where Are All the PGRs?*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP (Dec. 6, 2019), www.finnegan.com/en/insights/blogs/at-the-ptab-blog/where-are-all-the-pgrs.html (“Non-statutory grounds, such as obviousness-type double patenting or inequitable conduct, are not allowed in either IPRs or PGRs.”).

158. See *supra* Part III.B.

attorney to correct the patent, the patent attorney may approach them upon discovering the incorrect inventorship, or the patent attorney may correct the inventorship and never contact the non-joined inventor until after the correction has been made.¹⁵⁹ In all three scenarios, the non-joined inventor may see the forms to correct the inventorship with the relevant law (37 C.F.R. § 1.324, 35 U.S.C. § 256, or 35 U.S.C. § 251), but will likely never know that 1) due to previous deceptive conduct of other employees, the patent may be deemed invalid if challenged in court and 2) they could pursue invalidation of the patent as an alternate recourse to receiving attribution.¹⁶⁰ The reason is simple: it is likely a conflict of interest for the company attorney to tell the employee.¹⁶¹ Unless, during the joinder process, the employee seeks independent counsel, they may not know every legal option available to them – especially after removing the “deceptive intent” language from all correction laws.

Moreover, even if the employee learns of their legal options during this process, the patent owner may request a supplemental examination—a proceeding established under the AIA—to ask the USPTO to correct their patent in light of any inequitable conduct claims raised during litigation.¹⁶² This power is exclusively reserved for the patent owner and may be pursued at any time after the patent issues until the patent expires or is rendered unenforceable.¹⁶³ It should be noted that only 246 supplemental examinations were filed as of May 15, 2019, indicating that few patent owners feel the need to seek supplemental examination to correct inequitable conduct allegations.¹⁶⁴ As of January 2022, there has been no judicial decision where a supplemental examination proceeding protected a patent from an allegation of inequitable conduct of any kind.¹⁶⁵

159. Degnan & Huskey, *supra* note 41, at 5-6.

160. The second option may not be available to all inventors if the employee contract does not allow such an action.

161. *See* Nelson, *supra* note 64.

162. Adriana L. Burgy, et al., *AIA Supplemental Examination Nuts and Bolts: Get it in Your Toolbox and Don't Leave Home Without It!*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP 1, 1 (June 3, 2019), www.finnegan.com/en/insights/blogs/at-the-ptab-blog/aia-supplemental-examination-nuts-and-bolts-get-it-in-your-toolbox-and-dont-leave-home-without-it.html.

163. 37 C.F.R. § 1.601(a) (2020); 37 C.F.R. § 1.601(c) (2020).

164. *See* Burgy et al., *supra* note 162.

165. In Supplemental Examination 96/000,018, a defendant raised a defense of unenforceability for inequitable conduct, alleging that the declaration submitted in the supplemental examination was false, but the district court judge ruled there was no inequitable conduct on October 6, 2018 without mentioning the supplemental examination. *See* Amanda K. Murphy et al., *A Look at Chemical Supplemental Examination Requests*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP (Jan. 25, 2018), www.finnegan.com/en/insights/articles/a-look-at-chemical-supplemental-examination-requests.html.

This may be because, under *Therasense v. Beckton*, the Federal Circuit raised the burden for “inequitable conduct” purposes – requiring that the party asserting patent invalidity prove “inequitable conduct” through but-for materiality under a clear and convincing standard.¹⁶⁶ This provided yet another protection for the corporate entity and inequitably acting inventor that went untouched by corrections to § 256. After the AIA, if deceptively non-joined inventors want to invalidate a given patent instead of correct inventorship, they must prove by clear and convincing evidence that 1) there was “inequitable conduct” that resulted in improper inventorship and 2) if the USPTO was aware of the omitted information (i.e., of their inventive identities), then the USPTO would not have allowed the claim.¹⁶⁷

Congress’s attempt to make an efficient system under the AIA instead created a system where inventors wronged through non-joinder have a more difficult time finding, understanding, and pursuing all lawful options for remedy. Through this amendment, Congress allows the company an easy channel to maintain their ill-gotten patent while the wronged inventor must pursue a higher burden in litigation from a statute that is not readily visible in a § 256 proceeding.¹⁶⁸ It further created a system where employers may more easily change a patent’s inventorship when they are notified of an incorrect statement of inventorship—without holding any responsibility for another employee’s misconduct when that initial error occurred.¹⁶⁹ This is further compounded by the inefficient result that one party can simultaneously correct a patent’s inventorship only to invalidate it.¹⁷⁰

IV. HARMS AND REMEDIES

This Section demonstrates the impact of these changes through an analysis of the UMKC case discussed in the Introduction. With knowledge imbalances and more complicated processes, deceptively non-joined inventors are at a significant disadvantage compared to their

166. See Daniel Parrish, *Supplemental Examination and Inequitable Conduct: Protection and Pitfalls*, 4 MITCHELL HAMLINE SCH. L. 157, 175-76 (2013); see also *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290 (Fed. Cir. 2011); Jeffrey M. Jacobstein, *Therasense: Raising the Bar for Inequitable Conduct*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP (July 2011), <https://www.finnegan.com/en/insights/articles/therasense-raising-the-bar-for-inequitable-conduct.html>.

167. Parrish, *supra* note 165, at 175-76.

168. See Leslie A. McDonell, *AIA Breathes Life Into Inventorship Correction in PTO*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP (Nov. 1, 2013), <https://www.finnegan.com/en/insights/articles/aia-breathes-life-into-inventorship-correction-in-pt.html>.

169. See *id.*

170. See *id.*

employer and already attributed inventors. This Section also proposes legislative remedies to correct this imbalance and restore Congressional intent to streamline prosecution and litigation.¹⁷¹

A. University of Missouri-Kansas City: A Case Study on the Wronged Inventor

News articles hailed the recent settlement where Kishore Cholkar, a former graduate student at University of Missouri-Kansas City (“UMKC”), received at least \$1.4 million and a share in future revenues for patents that his professor, Ashim Mitra, filed and obtained without 1) his or the university’s knowledge and 2) attributing Cholkar as an inventor.¹⁷² UMKC sued Ashim Mitra in February 2019 for, among other actions, stealing UMKC-owned inventions, selling them to industry, fraudulently concealing these actions, and failing to name Cholkar as an inventor.¹⁷³ According to the complaint, Cholkar “conceived of a new and more effective formulation to deliver drugs to the eye” while employed as a graduate research assistant in Mitra’s laboratory.¹⁷⁴ Instead of filing for a patent naming both inventors through UMKC, Mitra allegedly “secretly sold Dr. Cholkar’s research and related inventions to a pharmaceutical developmental company [and] patented the formulation without naming Dr. Cholkar as an inventor.”¹⁷⁵ The University received \$6.45 million in a settlement and, out of that settlement, it gave Cholkar at least \$1.4 million.¹⁷⁶

Though Cholkar eventually benefitted monetarily and, under the current law, could receive inventorship attribution on the relevant patents, a few questions remain regarding the lawsuit and settlement.¹⁷⁷ First, after Mitra’s actions, are the patents in question still valid? Second,

171. See *infra* Part IV.B.3–4.

172. See *Missouri Graduate to Share Invention Profits Under Deal*, ASSOCIATED PRESS (Feb. 3, 2021), <https://apnews.com/article/technology-kansas-city-lawsuits-us-news-michael-brown-f50f67e4c0178a2944a8ad63543b3408>; see also Associated Press, *Missouri Graduate to Share in Invention Profits Under Deal*, ABC NEWS (Feb. 3, 2021, 2:37 PM), <https://abcnews.go.com/US/wireStory/missouri-graduate-share-invention-profits-deal-75664174>; Connor Stewart, *UMKC Settles Lawsuit with Professor Accused of Stealing Research, Receives \$6.45M*, UMKC ROO NEWS (Feb. 8, 2021), <https://info.umkc.edu/unews/umkc-settles-lawsuit-with-professor-accused-of-stealing-research-receives-6-45m>.

173. Complaint at 2, Curators of Univ. of Mo. v. Mitra, No. 4:19-cv-00143 (W.D. Mo. 2019).

174. *Id.*

175. *Id.*

176. Stewart, *supra* note 172.

177. USPTO.GOV does not currently reflect an updated inventorship including Dr. Cholkar from either of the patents in question in the UMKC suit. U.S. Patent No. 8,980,839 (filed Feb. 2, 2015) (showing only Ashim K. Mitra and Sidney L. Weiss); U.S. Patent No. 8,980,839 (filed Aug. 23, 2013) (showing only Ashim K. Mitra and Sidney L. Weiss).

was (and is) Cholkar aware of the potential to invalidate the relevant patents for Dr. Mitra's alleged inequitable conduct?¹⁷⁸

The patents in the UMKC case are likely not viable, in that if they are still considered an active patented case at the USPTO, a current licensee can claim that the patents are unenforceable due to 1) improper inventorship listed on the patents, 2) Dr. Mitra's alleged inequitable conduct, or both.¹⁷⁹ According to the complaint, UMKC sought "correction of the inventorship of the [patents] to add Dr. Cholkar as an inventor."¹⁸⁰ They did not simultaneously seek to remove Dr. Mitra from the patents, thereby implying that he is also a rightful inventor.¹⁸¹

Under § 256, Dr. Mitra's and Dr. Cholkar's intentions when the patent applications were filed or issued as patents are irrelevant.¹⁸² UMKC, as an assignee of the entire right, title, and interest, can correct the inventorship.¹⁸³ However, this does not remove the stain of Dr. Mitra's alleged actions and, as an inventor, his inequitable conduct – if proven by clear and convincing evidence – would likely render the patents unenforceable if challenged in court.¹⁸⁴ This challenge, if not brought by Dr. Cholkar, will likely arise from current licensees of the issued patents, especially given the relative cost of licensing the patent and the cost of litigation.¹⁸⁵

Moreover, the remedy of \$1.4 million may not be the only remedy desired by Cholkar or others in his position. Cholkar was working in Dr. Mitra's laboratory at UMKC and his university initially failed to protect his interests.¹⁸⁶ Dr. Mitra filed one of the patents in question on August 23, 2013, claiming priority to a provisional application filed on August

178. Jill K. MacAlpine et al., *It All Starts with Inventorship*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP (Feb. 5, 2021), <https://www.finnegan.com/en/insights/blogs/prosecution-first/it-all-starts-with-inventorship.html>.

The availability of this option with respect to standing and contractual obligations between Dr. Cholkar and UMKC will not be addressed in this Article.

179. *Id.*

180. Complaint at 36, *Curators of Univ. of Mo. v. Mitra*, No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019).

181. *Id.* at 3 (noting that UMKC did not petition to remove Dr. Mitra as an inventor).

182. See McDonell, *supra* note 168 (noting that "... the AIA makes it much easier to correct inventorship. Under the pre-AIA law, an inventorship correction required that the error had been made without deceptive intent. The AIA removes this obstacle by striking the language of "and such error arose without any deceptive intention on his part" from both 35 U.S.C. §§ 116 and 256.").

183. Complaint at 13, *Curators of Univ. of Mo. v. Mitra*, No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019); 35 U.S.C. § 256 (2012).

184. See *supra* note 25 and accompanying text; see also *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1288 (Fed. Cir. 2011) (en banc).

185. Stewart, *supra* note 1 (noting that the University believes it "could be a billion-dollar product").

186. *Id.* (noting that Dr. Cholkar "felt cheated" and that "One professor at UMKC, Mridul Mukherji, reported the actions of Mitra in [2016 and 2018] but little was done.").

24, 2012.¹⁸⁷ UMKC only sued Dr. Mitra in early 2019, leaving up to approximately five and a half years where UMKC was not supporting Dr. Cholkar's rights to inventorship attribution.¹⁸⁸ Still, in the settlement, UMKC received \$6.45 million and retained \$5.05 million after giving approximately \$1.4 million to Dr. Cholkar.¹⁸⁹

If Dr. Cholkar had perfect knowledge of all his options, this could have absolutely been considered a fair settlement. If, however, he was unaware that his testimony regarding inequitable conduct could invalidate the patents at issue, then the bargaining position between Dr. Cholkar and the university may have been unbalanced. For example, he could have decided to pursue invalidation, determining that the university did not deserve \$5.05 million after their delay in support. Furthermore, without his testimony to the contrary, the patent would likely remain viable. Knowing this, he may have been able to bargain for more money either up-front or on the basis of future royalties in a settlement.¹⁹⁰ Furthermore, given that Dr. Cholkar's settlement is not public, these answers will likely never surface in this case. However, the law should anticipate that Dr. Cholkar's situation is not unique and empower wronged, non-joined inventors with knowledge, options, and resources to remedy the inequitable conduct of others.

B. Outcomes and Proposed Remedies

When read in light of the history of § 256, the UMKC case illustrates answers to the questions posed in the introduction of this Article.¹⁹¹

1. Who Benefits from Eliminating the Deceptive Intent Requirement?

Inventors who were originally attributed in the patent application filing and assignees of the entire patent interest, benefit from eliminating the deceptive-intent requirement.¹⁹² UMKC can—for the time being—collect royalties for their still active patents and kept over \$5 million

187. U.S. Patent No. 8,980,839 (filed Aug. 23, 2013) (showing priority claim to U.S. provisional patent application 61/693,189).

188. Stewart, *supra* note 1.

189. *Id.*

190. Ethics and power dynamics regarding settlement of a civil case are well covered in the literature and will not be discussed further in this Article. See Heather Waldbeser & Heather DeGrave, *A Plaintiff's Lawyer's Dilemma: The Ethics of Entering a Confidential Settlement*, 16 GEO. J. LEGAL ETHICS 815, 816 (2003); James J. Alfini, *Settlement Ethics and Lawyering in ADR Proceedings: A Proposal to Revise Rule 4.1*, 19 N. ILL. U. L. REV. 255, 258-59 (1999).

191. See *supra* Part I, IV.A.

192. See *supra* Part III.B.

from a settlement with Dr. Mitra.¹⁹³ Although Dr. Mitra is receiving fewer royalties after this case settled, Dr. Mitra is still listed as an inventor on the patents, meaning he can still receive credit for his novel contributions and royalties for the patent.¹⁹⁴

2. Who Is Disadvantaged By Eliminating the Deceptive Intent Requirement?

Inventors who were originally not attributed in the patent application filing, due to deceptive actions of the assignee or another inventor, are disadvantaged by eliminating the deceptive-intent requirement.¹⁹⁵ In this case, Dr. Cholkar may not have known about every option available to him and this lack of knowledge may have impacted his settlement with UMKC. This may be especially true regarding his option to invalidate the patents, given that the university never brought – and would never be motivated to bring – charges of inequitable conduct in their initial suit.

3. Did the AIA Actually Remove the Deceptive Intent Requirement?

No—though the words “deceptive intent” no longer appear in § 256, the duty not to behave deceptively when naming patent inventors is still codified in 37 C.F.R. § 1.56.¹⁹⁶ *Frank’s Casing Crew & Rental Tools, Inc.*, decided only a few years after *Stark*, found that correction of inventorship under § 256 could be decided separately from the enforceability of such inventorship due to inequitable conduct.¹⁹⁷ The deceptive intent requirement for dealing with the USPTO, therefore, resides in the duty of disclosure, candor, and good faith in 37 C.F.R. § 1.56.¹⁹⁸

Herein, I propose two main remedies to rebalance remedies to correct misattribution. First, I propose an amendment to § 256 to resolve

193. *Former UMKC Student Will Get \$1.4M in Settlement With Ex-professor*, *supra* note 9.

194. *See id.*

195. *See supra* Part III.

196. 35 U.S.C. § 256 (2018); 37 C.F.R. § 1.56 (2020).

197. *Frank’s Casing Crew & Rental Tools, Inc. v. PMR Techs., Ltd. & PMR Servs., Inc.*, 292 F.3d 1363, 1377 (Fed. Cir. 2002).

198. *PerSeptive Biosys., Inc. v. Pharmacia Biotech., Inc.*, 12 F. Supp.2d 69, 73 (D. Mass. 1998); *see also id.* at 72 (“Rather than resolve this action in a piecemeal fashion, I conclude that it is both more efficient and in the interest of justice to determine whether defendants have proven by clear and convincing evidence that the named inventors engaged in inequitable conduct during prosecution of the patent by omitting co-inventors with deceptive intent, rather than to permit plaintiffs to withdraw the motion to correct inventorship.”). I also note that 37 C.F.R. § 1.555 requires an identical duty of candor and good faith during reexamination and *inter partes* review proceedings. 37 C.F.R. § 1.555 (2020).

notice of remedies regarding inequitable conduct, realign the section to reflect Congressional intent, and empower deceptively non-joined inventors.¹⁹⁹ Second, I propose expanding access to supplemental examination, allowing deceptively non-joined inventors access to both the court system and USPTO system as inequitable conduct evaluators.²⁰⁰

4. Section 256 Amendment

In addition to clarifying that only inventors can obtain a patent,²⁰¹ I propose an amendment to § 256 for various reasons. First, § 256 should clarify the intersection between correct inventorship and inequitable conduct. Second, § 256 should reduce the potential for duplicative lawsuits to correct inventorship, and then render the patent unenforceable (for the inequitable conduct that caused the originally incorrect inventorship).

The italicized language below sets forth my proposed amendment to § 256:

Whenever through error a person is named in an issued patent as the inventor, or through error an inventor is not named in an issued patent, *without inequitable conduct on the part of any true inventor or inventors*, the Director may, on application of all the parties and assignees, with proof of the facts and such other requirements as may be imposed, issue a certificate correcting such error.²⁰²

This is similar to the but-for rule set forth in *Therasense* and proposed in the Federal Register in 2016, that “no patent will be granted on an application in connection with which affirmative egregious misconduct was engaged in, fraud on the Office was practiced or attempted, or the duty of disclosure was violated through bad faith or intentional misconduct.”²⁰³ Though this proposal was never adopted, the

199. See *infra* Part IV.B.4.

200. See *infra* Part IV.B.5.

201. Dennis Crouch, *With 102(f) Eliminated, Is Inventorship Now Codified in 35 U.S.C. 101? Maybe, but not Restrictions on Patenting Obvious Variants of Derived Information*, PATENTLY-O (Oct. 4, 2012), patentlyo.com/patent/2012/10/with-102f-eliminated-is-inventorship-now-codified-in-35-usc-101.html (showing that some attorneys wrongly believed that the elimination of Section 102(f)'s inventorship requirement allowed an individual who is not an inventor to obtain a patent).

202. 35 U.S.C. § 256 (2012) (emphasis added).

203. DEP'T COM., U.S. PAT. & TRADEMARK OFF., 2011-0030, REVISION OF THE DUTY TO DISCLOSE INFORMATION IN PATENT APPLICATIONS AND REEXAMINATION PROCEEDINGS 74987 (2016); *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1291 (Fed. Cir. 2011) (en banc) (“[The materiality required to establish inequitable conduct is but-for materiality. When an applicant fails to disclose prior art to the [US]PTO, that prior art is but-for material if the [US]PTO would not have allowed a claim had it been aware of the undisclosed prior art.”).

implications of barring enforcement and validity of an application with applicants or inventors engaging in “affirmative egregious misconduct” throughout the patent process should be considered even more favorably if public discovery of such misconduct occurs after the patent issues.

My proposed amendment simultaneously resolves three issues. First, the amendment puts inventors on notice that there should be no inequitable conduct during the inventorship process, in that the inventor would need to sign a statement asserting the lack of inequitable conduct during the § 256 process. This is especially important for lay inventors correcting a patent at the behest of a company attorney.²⁰⁴ Second, this amendment aligns with congressional intent to facilitate “correction of prosecution errors and reduc[e] litigation burdens.”²⁰⁵ No longer can two simultaneous litigations, one pursuing correction of patent inventorship, and the other invalidating the patent based on the underlying cause of that incorrect inventorship, clog the already burdened United States court system.²⁰⁶ Finally, this restores choice to the non-joined inventor in practice, allowing them to choose between 1) inventorship recognition and 2) invalidation of an inequitably acquired patent both at the USPTO and in court.

I also note that, in honor of *Stark*, I ensured that there was a comma to signal that the inequitable conduct exception applies to both misjoinder and non-joinder.²⁰⁷

5. Supplemental Examination Reform

In addition to § 256 reform, Congress could also reform access to the AIA-created supplemental examination proceedings to allow both patent owners and inventors (including those claiming to be inventors) “to request that the USPTO review information that might later provide a basis for an inequitable conduct allegation if left unaddressed.”²⁰⁸ As

204. See GIBBS & DEMATTEIS, *supra* note 137, at 229.

205. Armon, *supra* note 70, at 14; see Armitage, *supra* note 70, at 1; see also Doody, *supra* note 20, at 133.

206. See e.g., Frank’s Casing Crew & Rental Tools, Inc. v. PMR Tech., Ltd., 292 F.3d 1363, 1377 (Fed. Cir. 2002); PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc., 225 F.3d 1315, 1318 (Fed. Cir. 2000) (showing that intentionally failing to name a joint inventor is inequitable conduct, which may result in an unenforceable patent finding). I will discuss duplicity of actions in patent litigation and PTAB actions in a future work. See Anderson Corp. v. GED Integrated Sols., Case No. DER2017-00007 32 (Mar. 21, 2018), portal.unifiedpatents.com/ptab/case/DER2017-00007.

207. *Stark v. Advanced Magnetics, Inc.*, 119 F.3d 1551, 1556-57 (Fed. Cir. 1997). I expect to explore the most impactful commas in U.S. history in a future work.

208. Michele C. Bosch et. al., *A Tale of Two Supplemental Examinations: Part 1: Unraveling Confusion*, FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, LLP (June 6, 2019), www.finnegan.com/en/insights/blogs/prosecution-first/a-tale-of-two-supplemental-examinations-part-1-unraveling-confusion.html.

addressed above, supplemental examination is a tool where the USPTO can reevaluate a patent “to consider, reconsider, or correct information believed to be relevant to the patent.”²⁰⁹ If the new “information presented in the request [for supplemental examination] raises a substantial new question of patentability” [“SNQ”], then the patent proceeds to *ex parte* reexamination.²¹⁰ However, if there is no finding of an SNQ, the supplemental examination certificate “estop[s] any future unenforceability challenges based on the submitted information.”²¹¹ Currently, only patent owners can request supplemental examination,²¹² creating an access imbalance, especially when reevaluating whether inequitable conduct in inventorship recognition may invalidate the patent.

If the object of supplemental examination is to “satisf[y] a long-felt need in the patent community to be able to identify whether a patent would be deemed flawed if it ever went to litigation,”²¹³ then access to such examination should not be limited to just patent owners. An expansion of supplemental examination access, however, should not occur without restriction. If supplemental examination were accessible to all third-parties, then the USPTO would become an alternative adjudicative body and may be overwhelmed by large corporations attempting to inexpensively intimidate less-wealthy patent owners.

So as not to open the USPTO floodgates, I propose expanding access to supplemental examination to inventors and those alleging to be inventors. This at least partly addresses Representative Henry Waxman’s concern that the supplemental examination system is a “‘get out of jail free card’ for any company fearful of having their patent invalidated because they deceived the [US]PTO.”²¹⁴ With this expansion, inventors—especially non-joined inventors—would have access to the USPTO as a means of adjudicating whether inequitable conduct could invalidate a patent, rather than being limited to litigation.

These two amendments, in tandem, can mitigate the imbalanced power dynamics exacerbated by the AIA. Through this, both the patent owner and non-joined inventors have more equal opportunities to evaluate and determine patent validity, and more equitable control over the resulting consequences of that evaluation.

209. 35 U.S.C. § 257(a) (2011); *see supra* Section III B; *see also* 37 C.F.R. § 1.601(a) (2020).

210. Burgy et al., *supra* note 162; 35 U.S.C. § 257(a) (2012).

211. Burgy et al., *supra* note 162.

212. 35 U.S.C. § 257 (2011).

213. 157 CONG. REC. S1097 (daily ed. Mar. 2, 2011) (statement of Sen. Hatch).

214. 157 CONG. REC. E1208 (daily ed. June 24, 2011) (statement of Rep. Waxman).

V. CONCLUSION

Congress must amend the AIA to realize its original goal of bolstering economic development.²¹⁵ The AIA has created an insurmountable imbalance between inventor and corporation, allowing companies to retain patent rights in light of inequitable conduct through lack of transparency and accessibility.²¹⁶ Changes to § 256 codified a litigation redundancy, where an actor could spend significant time and money correcting patent inventorship while simultaneously building a case for invalidation of that same patent for inequitable conduct.²¹⁷ The inequitable conduct remnant of the AIA indicates Congress's intent to uphold the moral code in patent pursuits. Therefore, Congress must also remove the barriers to pursuing that moral compass.

By amending 35 U.S.C. § 256 to explicitly state that inventorship cannot be corrected if there was "inequitable conduct on the part of any true inventor or inventors," inventors will be better informed about their option to seek an invalidity remedy in the event of inequitable conduct, Congress can reduce litigation burdens for economically non-viable and inequitably obtained patents, and all actors are informed of the importance of candor and honesty before the USPTO.²¹⁸ Furthermore, expanding access to supplemental examination creates an accessible path to remedy for both the wronged inventor and the company. This mitigates the "single worst disaster in the 226-year history of the U.S. patent system" by restoring the balance between corporation and inventor in the pursuit of equitable inventorship recognition.²¹⁹

215. See Paul Morinville, *How the America Invents Act Harmed Inventors*, IPWATCHDOG, INC. (Sept. 10, 2016), www.ipwatchdog.com/2016/09/10/america-invents-act-harmed-inventors/id=72551.

216. See *id.*

217. Armitage, *supra* note 70, at 1.

218. 35 U.S.C. § 256 (2018).

219. Morinville, *supra* note 215.