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WHO BENEFITS?: HOW THE AIA HURT DECEPTIVELY NON-
JOINED INVENTORS
*Jordana R. Goodman**

ABSTRACT

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

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court system. Through these changes, the AIA can effectively bolster economic development by recognizing and empowering inventors.

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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 [Kishore Cholkar] 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 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, Auvon Therapeutics.”³ Together, Dr. Mitra and Auvon filed and obtained patents directed to the drug formulation “without naming Dr. Cholkar as an inventor and without getting approval from the University.”⁴

¹ 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/>.

² Complaint, Curators of Univ. of Mo. v. Mitra, Docket No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019) (Bloomberg).

³ Complaint, Curators of Univ. of Mo. v. Mitra, Docket No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019) (Bloomberg).

⁴ Complaint, Curators of Univ. of Mo. v. Mitra, Docket No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019) (Bloomberg).

UMKC sued Ashim Mitra, the pharmaceutical company, and other entities in 2019, requesting judgment to correct inventorship of the patents, declaring UMKC's ownership, breach of contract, fraudulent misrepresentation, and others.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 "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? Why are the patents in question expected to yield future royalties when an original inventor allegedly engaged in inequitable conduct?⁸ Why didn't the USPTO render the patents unenforceable due to this alleged inequitable conduct?⁹ The answers lie within the depths of patent law.

President Barack Obama signed the Leahy-Smith America Invents Act (AIA) into law on September 16, 2011.¹⁰ 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 entrepreneurs."¹¹ The original statement from the White House highlighted many of the changes recognized and used by most patent practitioners today: the fast

⁵ Complaint, *Curators of Univ. of Mo. v. Mitra*, Docket No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019) (Bloomberg).

⁶ 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/>; *Former UMKC student will get \$1.4M in Settlement with ex-Professor*, Kan. City B. J. (Feb. 4, 2021), <https://www.bizjournals.com/kansascity/news/2021/02/04/umkc-dry-eye-treatment-settlement.html>.

⁷ 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/>.

⁸ *Former UMKC student will get \$1.4M in Settlement with ex-Professor*, Kan. City B. J. (Feb. 4, 2021), <https://www.bizjournals.com/kansascity/news/2021/02/04/umkc-dry-eye-treatment-settlement.html>; 37 C.F.R. § 1.56 (2022).

⁹ See e.g., *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1285, 1287 (Fed. Cir. 2011) (en banc).

¹⁰ *President Obama Signs America Invents Act*, WHITE HOUSE (Sept. 16, 2011), <https://obamawhitehouse.archives.gov/the-press-office/2011/09/16/president-obama-signs-america-invents-act-overhauling-patent-system-stim>.

¹¹ *President Obama Signs America Invents Act*, WHITE HOUSE (Sept. 16, 2011), <https://obamawhitehouse.archives.gov/the-press-office/2011/09/16/president-obama-signs-america-invents-act-overhauling-patent-system-stim> (referencing *Patent*, LEGAL INFO. INST., <https://www.law.cornell.edu/wex/patent> (last visited Jan. 30, 2022) ("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.")).

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.”¹² 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.¹³

Section 256 identifies when a party can correct the incorrect named inventorship on a patent.¹⁴ Before the AIA, parties could not correct inventorship if the “error arose [with] any deceptive intent.”¹⁵ The AIA amended Section 256 to remove this exception, theoretically allowing inventorship to be corrected regardless of the original intent.¹⁶ Effectively, for the purposes of the administration, the United States Patent and Trademark Office (USPTO) director does not need to consider intent in order to correct the patent inventorship under Section 256.¹⁷

As noted in Patrick A. Doody’s *Comprehensive Legislative History of the Leahy-Smith America Invents Act*, the purpose of “Eliminating the various deceptive-intent requirements” was to move “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 that will be much cheaper to litigate and more efficient to administer.”¹⁸ The implication herein is simple: eliminating the deceptive-intent requirements creates a better patent system.

¹² *President Obama Signs America Invents Act*, WHITE HOUSE (Sept. 16, 2011), <https://obamawhitehouse.archives.gov/the-press-office/2011/09/16/president-obama-signs-america-invents-act-overhauling-patent-system-stim>.

¹³ *Redline version (2011) 35 U.S.C. § 256, Correction of Named Inventor*, BITLAW, https://www.bitlaw.com/source/35usc/aia_redline/256.html (Nov. 2011) (removing the phrase “and such error arose without any deceptive intention on his part”).

¹⁴ *See id.* (“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.”).

¹⁵ *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, 1288 (Fed. Cir. 2011) (en banc) (noting that “Because direct evidence of deceptive intent is rare, a district court may infer intent from indirect and circumstantial evidence”);

¹⁶ *Redline version (2011) 35 U.S.C. 256, Correction of Named Inventor*, BITLAW, https://www.bitlaw.com/source/35usc/aia_redline/256.html (Nov. 2011).

¹⁷ *See id.* (“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” but removing the term “without deceptive intention” from the required facts and such other requirements of the section.).

¹⁸ Patrick A. Doody, *Comprehensive Legislative History of the Leahy-Smith America Invents Act*, PILLSBURY LLP, <https://www.pillsburylaw.com/images/content/4/0/v2/4067/AIA-LegislativeHistory-final.pdf>.

This paper questions this premise on three grounds: 1) Who benefits from eliminating the deceptive-intent requirement? 2) Who is disadvantaged by eliminating the deceptive-intent requirement? and 3) Did the America Invents Act actually remove the deceptive intent requirement?¹⁹ 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.²⁰ The America Invents Act 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.²¹

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. Section III expands on this process, exploring the potential and realized impact of amending Section 256 under the AIA and through Federal Circuit interpretation. 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.

II. AN OVERVIEW OF THE PATENT PROCESS

To understand the impact of amendments to Section 256, it is important to understand some of the basics of patent prosecution at the USPTO.²² 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

¹⁹ These questions are inspired by *Data Feminism* by Catherine D'Ignazio and Lauren Klein ("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)?") CATHERINE D'IGNAZIO & LAUREN KLEIN, *DATA FEMINISM* (MIT Press 2020).

²⁰ *Nichols Inst. Diagnostics, Inc. v. Scantibodies Clinical Lab., Inc.*, 218 F.Supp. 2d 1243 (S.D. Cal 2002) (denying a motion for summary judgment and the motion for a stay, "Under 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 (PTO) and the district court are under the same statutory obligation to determine a lack of deceptive intent, the 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 PTO requires only that the omitted inventor submit a pro forma declaration stating that the error of nonjoinder was committed without deceptive intent.").

²¹ U.S. PAT. & TRADEMARK OFF., 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.").

²² See generally Frank W. Dingley, *An Overview of Patent Prosecution*, 93 LIBR. STAFF PUBL'NS 47 (2012).

ordinary skill in the art, such that the person would not need to unduly experiment to reproduce the invention.²³ 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.²⁴ Inclusion of more or less than the true inventors on a patent renders the patent void.²⁵

Furthermore, inventors and companies must fill out information disclosure statements, disclosing all "information material to patentability."²⁶ 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."²⁷ Failure to disclose the information may be considered fraud, bad faith, or intentional misconduct.²⁸

Once they apply for a patent, at least one patent examiner reviews their application and either allows or rejects the application.²⁹ 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.³⁰ 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.

²³ Frank W. Dingley, *An Overview of Patent Prosecution*, 93 LIBR. STAFF PUBL'NS 47 (2012).

²⁴ Rebecca S. Eisenberg, *Obvious to Whom? Evaluating Inventions from the Position of PHOSITA*, 19 BERKELEY TECH. L.J. 885 (2004).

²⁵ *Jamesbury Corp. v. United States*, 518 F.2d 1384 (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.").

²⁶ U.S. PAT. & TRADEMARK OFF., MPEP §609 (9th ed. 2020); U.S. PAT. & TRADEMARK OFF., MPEP §2001 (9th ed. 2020).

²⁷ U.S. PAT. & TRADEMARK OFF., MPEP §2001 (9th ed. 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.")

²⁸ U.S. PAT. & TRADEMARK OFF., MPEP §2001 (9th ed. 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.")

²⁹ Frank W. Dingley, *An Overview of Patent Prosecution*, 93 LIBR. STAFF PUBL'NS 47 (2012).

³⁰ *See id.*

In the US, many inventors have little control over their patent application or the resulting patent. 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.³¹ “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.”³² Less than 6% of all US-granted patents are owned by an individual.³³ 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.³⁴ These “agreement[s] to the contrary” – usually in the form of invention assignments to companies – can leave inventors with little control over their invention.³⁵

Employee-inventors can assign their ownership rights to a company in aggregate or piecemeal. 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 they invent a new invention.³⁶ This one-at-a-time formula is rare for companies, although 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.³⁷

³¹ 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.”).

³² *Id.*

³³ *Top Organizations 2020: Part A1-Table A1-2b, Breakout by Ownership Category*, U.S. PAT. & TRADEMARK OFF. (2021), https://www.uspto.gov/web/offices/ac/ido/oeip/taf/topo_20.htm#PartA1_2 ; STUART GRAHAM, CHERYL GRIM, TARIQUL ISLAM, ALAN MARCO & JAVIER MIRANDA, *BUSINESS DYNAMICS OF INNOVATING FIRMS: LINKING U.S. PATENTS WITH ADMINISTRATIVE DATA ON WORKERS AND FIRMS* (2015), <https://www2.census.gov/ces/wp/2015/CES-WP-15-19.pdf>.

³⁴ James M. Rice, *The Defensive Patent Playbook*, 30 BERKELEY TECH. L.J. 725, 728, 730 (2015) (“Too many owners held exclusive patent rights that inventors sought to build upon.”; “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.”); Donald A. Degnan & Libby A. Huskey, *Inventorship: What Happens When You Don’t Get It Right?*, HOLLAND & HART LLP (2006), <https://www.hollandhart.com/articles/InventorshipWhatHappens.pdf>.

³⁵ PLC Intellectual Property & Tech., *Drafting Employee Work Made for Hire and IP Assignment Clauses*, PRAC. L. (Jan. 07, 2013), [https://content.next.westlaw.com/6-523-4246?_lrTS=20210816154323692&transitionType=Default&contextData=\(sc.Default\)&firstPage=true](https://content.next.westlaw.com/6-523-4246?_lrTS=20210816154323692&transitionType=Default&contextData=(sc.Default)&firstPage=true).

³⁶ Emily A. Sample, *Assigned All My Rights Away*, 104 IOWA L. REV. 447 (2018).

³⁷ Emily A. Sample, *Assigned All My Rights Away*, 104 IOWA L. REV. 447 (2018) (citing Marc B. Hershovitz, *Unhitching the Trailer Clause: The Rights of Inventive Employees and*

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.³⁸ Essentially, the employee will agree to disclose their inventions to the company, assign all rights, title and interest to their inventions to the Company (whether or not patentable), and acknowledge that their inventions are "'works made for hire' (to the greatest extent permitted by applicable law)," such that their salary is fair compensation for their work.³⁹ 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."⁴⁰ 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.⁴¹

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."⁴² Patents later found to have incorrect inventorship may be held unenforceable, to avoid invalidation, may be corrected under 35 U.S.C. 256.⁴³ The patent is considered invalid if every

Their Employers, 3 J. INTELL. 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.").

³⁸ Emily A. Sample, *Assigned All My Rights Away*, 104 IOWA L. REV. 447 (2018).

³⁹ *Invention Assignment Agreement*, SIMUL (2020),

<https://www.simuldocs.com/templates/invention-assignment-agreement> (last visited Jan. 30, 2022).

⁴⁰ *Invention Assignment Agreement*, SIMUL (2020),

<https://www.simuldocs.com/templates/invention-assignment-agreement> (last visited Jan. 30, 2022).

⁴¹ *Invention Assignment Agreement*, SIMUL (2020),

<https://www.simuldocs.com/templates/invention-assignment-agreement> (last visited Jan. 30, 2022).

⁴² U.S. PAT. & TRADEMARK OFF., MPEP §2157 (9th ed. 2020) (For patent applications with an effective filing date on or after March 16, 2013, the USPTO will reject the application under 35 U.S.C. § 101 and 35 U.S.C. § 115. For patent applications with an effective filing date before March 16, 2013, the USPTO will reject the application under pre-AIA 35 U.S.C. § 102(f)).

⁴³ 35 U.S.C. § 256 ("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

inventor who conceived the invention described in the patent is not properly attributed and such improper attribution cannot be corrected.⁴⁴

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.”⁴⁵ If they do not agree to this process, the company can attempt to circumvent them using contractual agreements such as those described above. For example, “If 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.”⁴⁶ However, to file this substitute statement, the filer must show that they are the a party having sufficient proprietary interest, meaning that they “have the right to prosecute the application.”⁴⁷ If they cannot show this, their application may be denied. 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.⁴⁸

Although every inventor can use their own attorney through this process, many inventors are guided by the attorney prosecuting the patent

as provided in this section.”); *Egenera, Inc. v. Cisco Sys.*, 972 F.3d 1367, 1376 (Fed. Cir. 2020) (“Precedent recognizes that a patent cannot be invalidated if inventorship can be corrected instead.”).

⁴⁴ *PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc.*, 225 F.3d 1315 (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.”); *Univ. of West Virginia v. Van Voorhies*, 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.”).

⁴⁵ *Declaration (37 CFR 1.63) for Utility or Design Application Using an Application Data Sheet (37 CFR 1.76)*, U.S. PAT & TRADEMARK OFF., available at <https://www.uspto.gov/sites/default/files/documents/aia0001.pdf>.

⁴⁶ 37 C.F.R. § 1.45 (2022).

⁴⁷ 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), <https://cisloandthomas.com/what-should-you-do-if-an-inventor-refuses-to-sign-a-declaration-for-your-patent-application/>; 37 C.F.R. § 1.64(a)(iii) (2022).

⁴⁸ *PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc.*, 225 F.3d 1315 (Fed. Cir. 2000); *Univ. of W. Va. v. Van Voorhies*, 278 F.3d 1288, 1302 (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.”); *Egenera, Inc. v. Cisco Sys.*, 972 F.3d 1367, 1377 (Fed. Cir. 2020) (“Precedent recognizes that a patent cannot be invalidated if inventorship can be corrected instead.”).

application on behalf of the company.⁴⁹ This attorney certainly must uphold their ethical duties to “not represent a client if the representation involves a concurrent conflict of interest,” but when applying for a patent application, there is likely no conflict between the company’s interest and the employee’s interest during the patent prosecution process because everyone desires to obtain a valid patent.⁵⁰ Therefore, an attorney can represent both the company and the company’s employees.⁵¹

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.⁵² The AIA transitioned the “U.S. to a first-inventor-to-file system from a first-to-invent system” effective March 16, 2013.⁵³ 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 any ground that could be raised under § 282(b)(2).”⁵⁴ The AIA also amended Section 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.”⁵⁵ Many of these

⁴⁹ Steven L. Lovett, *The Employee-Lawyer: A Candid Reflection on the True Roles and Responsibilities of In-House Counsel*, 34 J.L. & COM. 133 (2015); Univ. of W. Va. v. Van Voorhies, 278 F.3d 1288, 1302 (Fed. Cir. 2002) (“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.”).

⁵⁰ MODEL RULES OF PRO. CONDUCT r. 1.7 (AM. BAR ASS’N 2020).

⁵¹ Josephine Sandler Nelson, *The Conflict of Interest Inherent in a Corporation Paying for Its Employee’s Counsel*, BERKELEY L. (Aug. 19, 2013, 7:41 AM), <https://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.”).

⁵² Robert A. Armitage, *Understanding the America Invents Act and Its Implications for Patenting*, 40 AIPLA Q. J. 1 (2012).

⁵³ *First Inventor to File (FITF) Resources*, U.S. PAT & TRADEMARK OFF. (Feb. 5, 2016, 11:01 AM EST), <https://www.uspto.gov/patents/first-inventor-file-fitf-resources>.

⁵⁴ *Post Grant Review*, U.S. PAT & TRADEMARK OFF. (Sept. 4, 2020, 1:11 PM EDT), <https://www.uspto.gov/patents/ptab/trials/post-grant-review>.

⁵⁵ Katherine E. White, “*There’s a Hole in the Bucket*”: *The Effective Elimination of the Inequitable Conduct Doctrine*, 11 J. MARSHALL REV. INTELL. PROP. L. 716 (2012).

changes were meant to align US patent laws with European standards and facilitate an easier patent prosecution and litigation process.⁵⁶

Many amendments, including amendments to Section 256 under the AIA, meant to ease “correction of prosecution errors and reduc[e] litigation burdens,” were – at best – questionably effective.⁵⁷ The AIA, however, was not the first time in US history where the provisions of Section 256 were worsened for a non-joined inventor. It is important to understand the history of changes to Section 256 to realize the true impact of the AIA on the correction of inventorship.

Before the AIA, Section 256 was thought of as a “‘savings provision’ to prevent invalidation of patent due to good faith inventorship errors.”⁵⁸ 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.”⁵⁹ Though the phrasing is awkward, *Rival Mfg. Co. v. Dazey Prod. Co.* 1973 stated that “on his part” must “both 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.”⁶⁰

⁵⁶ Patrick A. Doody, *Comprehensive Legislative History of the Leahy-Smith America Invents Act*, Pillsbury LLP, <https://www.pillsburylaw.com/images/content/4/0/v2/4067/AIA-LegislativeHistory-final.pdf> (for example, “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.”)

⁵⁷ Robert A. Armitage, *The Role of the America Invents Act in Ending the Plague of “Inequitable Conduct” Allegations*, 4 LANDSLIDE 1 (2012); Orion Armon, *The Leahy-Smith America Invents Act*, COOLEY LLP, https://www.law.berkeley.edu/files/bclt_New_Patent_Law_Explained_Panel_1-Litigation_Changes.pdf (last visited on Jan. 30, 2022); Patrick A. Doody, *Comprehensive Legislative History of the Leahy-Smith America Invents Act*, PILLSBURY LLP, <https://www.pillsburylaw.com/images/content/4/0/v2/4067/AIA-LegislativeHistory-final.pdf>.

⁵⁸ Flora M. Amwayi, *Correcting Inventorship During Litigation: Why, Why, How*, FINNEGAN (July 31, 2012), <https://www.finnegan.com/en/insights/articles/correcting-inventorship-during-litigation-when-why-how.html>.

⁵⁹ 2 DONALD S. CHISUM, CHISUM ON PATENTS § 2.04[1][d] (Matthew Bender 2022); *Modine Manufacturing Co. v. Allen Group.*, 5 USPQ2d 1922, 1929 n.5 (N.D. Calif. 1987) (citing 2 DONALD S. CHISUM, CHISUM ON PATENTS § 2.04[4] at 2-45 (Matthew Bender 2022) (“While the statute seems to focus only on the lack of deceptive intent of the inventor not named, the PTO rules provide that all the inventors sought to be named must lack deceptive intent.”).

⁶⁰ *Rival Mfg. Co. v. Dazey Prods. Co.*, 358 F. Supp. 91 (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

This meant that, if an inventor deceptively joined or left another inventor off the patent, the patent could be held invalid.⁶¹

The burden to prove misjoinder to invalidate a patent is higher than the burden to correct inventorship under Section 256.⁶² 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.⁶³ 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.⁶⁴

Section 256 provides “two separate avenues for correction of an inventorship mistake in an issued patent”: correction through the USPTO or correction through court order.⁶⁵ 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.⁶⁶ This avenue is only available when all parties

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 section 256 to particular facts clearly do not appear to have limited their factual inquiry concerning conduct only to an omitted inventor.”)

⁶¹ 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.

⁶² *NuClimate Air Quality Sys. v. M&I Heat Transfer Prods.*, No. 5:08-CV-0317 (NPM/GJD), 2008 U.S. Dist. LEXIS 56708 at *28 (N.D.N.Y. July 24, 2008) (the burden to prove misjoinder must be shown by clear and convincing evidence); *Jamesbury Corp. v. United States*, 518 F.2d 1384 (Ct. Cl. 1975) (“...there is a presumption that the inventors named in an issued patent are correct.”).

⁶³ *Iowa State Univ. Rsch Found. v. Sperry Rand Corp.*, 444 F.2d 406 (4th Cir. 1971).

2 DONALD S. CHISUM, *CHISUM ON PATENTS* § 2.04 (Matthew Bender 2022).

⁶⁴ 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.

⁶⁵ 2 DONALD S. CHISUM, *CHISUM ON PATENTS* § 2.04[2][b][i-ii] (Matthew Bender 2022).

⁶⁶ 2 DONALD S. CHISUM, *CHISUM ON PATENTS* § 2.04[2][b][i] (Matthew Bender 2022) (citing *Consol. Aluminum Corp. v. Foseco Int'l Ltd.*, 10 USPQ2d 1143, 1163 (N.D. Ill. 1988), magistrate's rulings aff'd in part and rev'd in part, 716 F. Supp. 316 (N.D. Ill. 1989), aff'd, 910 F.2d 804 (Fed. Cir. 1990); *Borden, Inc. v. Occidental Petroleum Corp.*, 381 F. Supp. 1178, 1207 (S.D. Tex. 1974); *Winbond Elec. Corp. v. U.S. Int'l Trade Comm'n*, 262 F.3d 1363 (Fed. Cir. 2001); *Modine Mfg Co. v. Allen Grp.*, 5 USPQ2d 1922, 1930 (N.D. Calif. 1987).

relevant in the patent inventorship correction process (meaning all inventors and the assignee) agree that the inventorship should be corrected in accordance with the Section 256 certificate.⁶⁷ Applicants pursue the second avenue, correction through court order, when the parties disagree about the desired outcome.⁶⁸ This is usually the avenue to pursue when the non-joined inventor decides to seek patent invalidation, rather than correction.

However, *Stark v. Advanced Magnetics* – a case where an inventor wanted to establish that he was a sole or joint inventor on a series of patents – effectively and improperly eliminated the invalidation choice for wronged, non-joined inventors from Section 256.⁶⁹

A. *Stark v. Advanced Magnetics*

Radiologist Dr. David Stark developed magnetic resonance imaging (MRI) technologies with Advanced Magnetics, Inc. (AMI).⁷⁰ However, he was not named on any of the resulting patents and sought correction, asking to be named as an inventor on the patents.⁷¹ 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.”⁷² Therefore,

⁶⁷ *Display Rsch Lab’ys, Inc. v. Telegen Corp.*, 133 F. Supp.2d 1170, 1173 (N.D. Ill. 2001)

⁶⁸ *Pannu v. Iolab Corp.*, 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.S. § 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.S. § 256 is a savings provision. If a patentee demonstrates that inventorship can be corrected as provided for in 35 U.S.C.S. § 256, a district court must order correction of the patent, thus saving it from being rendered invalid.”).

⁶⁹ *Stark v. Advanced Magnetics*, 119 F.3d 1551, 1555 (Fed. Cir. 1997) (“Dr. David Stark, a physician specializing in radiology, collaborated with Advanced Magnetics, Inc. (AMI) in developing magnetic resonance imaging (MRI) technologies.”).

⁷⁰ *Stark v. Advanced Magnetics*, 119 F.3d 1551 (Fed. Cir. 1997) (“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.”).

⁷¹ *Stark v. Advanced Magnetics*, 119 F.3d 1551, 1552 (Fed. Cir. 1997) (“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”).

⁷² *Stark v. Advanced Magnetics*, 119 F.3d 1551 (Fed. Cir. 1997).

Dr. Stark was able to achieve the relief he sought: receiving inventorship recognition on the patent.⁷³

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. 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.⁷⁴ However, though the initial result favored Dr. Stark, in that a wronged, non-joined inventor can be named as a patent inventor under a Section 256 regardless of the deceit of their fellow inventors, the result was unhelpful for wronged inventors seeking to invalidate the patent.⁷⁵

The patents now bearing Stark's name as a rightful inventor are likely unenforceable and, therefore, monetarily worthless.⁷⁶ 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.”⁷⁷

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.⁷⁸ Essentially, the Federal Circuit created a doctrine

⁷³ *See id.* I note that, if Stark sought to invalidate the patent, he likely would have needed to raise the allegation of inequitable conduct.

⁷⁴ *Stark v. Advanced Magnetics*, 119 F.3d 1551 (Fed. Cir. 1997) (ruling that only the inventor seeking correction of inventorship must demonstrate their lack of deceptive intent).

⁷⁵ *Stark v. Advanced Magnetics*, 119 F.3d 1551 (Fed. Cir. 1997) (citing *Burroughs Wellcome Co. v. Barr Lab., Inc.*, 40 F.3d 1223, 1227 (Fed. Cir. 1994) (“patent 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 (PTO)”)

⁷⁶ *Stark v. Advanced Magnetics*, 119 F.3d 1551 (Fed. Cir. 1997).

⁷⁷ *Stark v. Advanced Magnetics*, 119 F.3d 1551 (Fed. Cir. 1997). 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 R. Goodman, Ms. Attribution: How Authorship Credit Contributes to the Gender Gap*, 2022 (forthcoming). In ruling in favor of the wronged inventor, the court in *Stark* appears to have attempted to right the balance. 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.

⁷⁸ *Frank's Casing Crew & Rental Tools, Inc. v. PMR Techs., Inc.*, 292 F.3d 1363 (Fed. Cir. 2002).

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 Section 256: allowing wronged inventors an easy way to invalidate a patent without bringing a count of inequitable conduct to court.

First, when interpreting the legislative history of Section 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.”⁷⁹ The court then cites “H.R. Rep. No. 97-542, 97th Cong., 2d Sess. (1982), reprinted in 1982 U.S.C.C.A.N. 765, 773 (“The 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.”).”⁸⁰

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. The Congressional record states that the absence of deceptive intent must be shown for the “true inventor or inventors” in the aggregate.⁸¹ If a true inventor left another co-inventor off a patent, Congress did not intend for inventorship to be correctable under Section 256.

The Federal Circuit continued to misinterpret the Section 256 statute, in Stark, concluding that the statute “allows correction [in] nonjoinder cases where [only] the unnamed inventor is free of deceptive intent” on the basis of a comma.⁸²

The legislative history suggested that Section 256 – correction of named inventors on a patent – and 35 USC 116 (Section 116) – correction of named inventors in a patent application – were meant “to be interpreted in a uniform manner.”⁸³ Section 116 (1994) read as follows:

⁷⁹ Stark v. Advanced Magnetics, 119 F.3d 1551 (Fed. Cir. 1997) (emphasis added).

⁸⁰ Stark v. Advanced Magnetics, 119 F.3d 1551 (Fed. Cir. 1997); H.R. REP. NO. 97-542, at 2035 (1982), reprinted in 1982 U.S.C.C.A.N. 765, 773.

⁸¹ H.R. REP. NO. 97-542, at 2035 (1982), reprinted in 1982 U.S.C.C.A.N. 765, 773.

⁸² Stark v. Advanced Magnetics, 119 F.3d 1551 (Fed. Cir. 1997).

⁸³ Stark v. Advanced Magnetics, 119 F.3d 1551, 1555 (Fed. Cir. 1997) (“[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 also* 2 DONALD S. CHISUM, CHISUM ON PATENTS § 2.04 (Matthew Bender 2022).

“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 Commissioner may permit the application to be amended accordingly...”⁸⁴

Section 256 (1996) read 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 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.”⁸⁵

The court determined that, because there was no comma before “and such error arose” in Section 256, but there was a comma before “and such error arose” in Section 116, only nonjoinder and not misjoinder cases require lack of deceptive intent in issued patents.⁸⁶ However, both nonjoinder and misjoinder cases do require lack of deceptive intent in pending applications.⁸⁷ 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 Section 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 CFR 1.324.⁸⁸ As quoted in Stark, the rule states “Whenever 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.”⁸⁹ 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 CFR 1.324 – the counterpart to Section 256.⁹⁰ Therefore, according to the legislation, when

⁸⁴ 35 U.S.C. § 116 (2011).

⁸⁵ 35 U.S.C. § 256.

⁸⁶ Stark v. Advanced Magnetics, 119 F.3d 1551 (Fed. Cir. 1997).

⁸⁷ Stark v. Advanced Magnetics, 119 F.3d 1551 (Fed. Cir. 1997).

⁸⁸ 37 C.F.R. § 1.324 (2022).

⁸⁹ Stark v. Advanced Magnetics, 119 F.3d 1551 (Fed. Cir. 1997) (citing 37 C.F.R. § 1.324) (emphasis added).

⁹⁰ 37 C.F.R. § 1.324 (2022).

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.⁹¹ 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, but an inventor must pursue a lengthy litigation process under the inequitable conduct doctrine to invalidate the patent. The inventor can no longer pursue patent invalidation under Section 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 Section 256, Congress implicitly codified the decision to remove the option in the AIA. The option to invalidate a patent under inequitable conduct is still available.⁹² However, not only did the AIA delete any mention of such availability in Section 256, but it also codified a system where the only way to seek the remedy of invalidation is in court.⁹³

The amendments to Section 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, 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

⁹¹ Stark v. Advanced Magnetics, 119 F.3d 1551, 1556 (Fed. Cir. 1997) (“While irrelevant to the question of correcting inventorship, Stark's allegations of fraud may (and this court stresses “may” because it has no factual findings to reach any conclusion) have implications under the inequitable conduct doctrine.”).

⁹² Egenera, Inc. v. Cisco Sys., 972 F.3d 1367, 1377 (Fed. Cir. 2020) (“It is the inequitable-conduct rules that provide a safety valve in the event of deceit.”).

⁹³ 6A DONALD S. CHISUM, CHISUM ON PATENTS § 19.03 (Matthew Bender 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.”).

hearing of all parties concerned and the Director shall issue a certificate accordingly.”⁹⁴

After the AIA, the reason for the originally incorrect inventorship is not relevant to a Section 256 request for correction inquiry.⁹⁵ This streamlined the correction process from an administration and pre-litigation standpoint, no longer requiring statements regarding the lack of deceptive intent.⁹⁶ To correct inventorship on an issued patent, the USPTO used to require statements “from each person being added to or removed from an application, stating that the error occurred without deceptive intent” along with an applicant’s oath in support of the change and written consent from assignees.⁹⁷ Under the AIA, any error in inventorship can be corrected under Section 256, as “‘Error’ is simply the incorrect listing of inventors” and does not require proof of an honest mistake.⁹⁸

This did not significantly reduce the paperwork required for inventorship correction. 37 CFR 1.324 lays out the procedure to correct inventorship in a patent pursuant Section 256. Like pre-AIA, requests to correct inventorship must still 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 he or she has no disagreement in regard to the request change” as well as a statement from all assignees and a fee.⁹⁹ The AIA only eliminated the requirement that each person must also state that the error

⁹⁴ 35 U.S.C. 256 (Pre-AIA): *Correction of Named Inventor*, BITLAW, [https://www.bitlaw.com/source/35usc/256_\(pre%E2%80%91AIA\).html](https://www.bitlaw.com/source/35usc/256_(pre%E2%80%91AIA).html) (Jan. 2018).

⁹⁵ 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. Alford*, 832 F.3d 1343, 1348 (Fed. Cir. 2016) (ruling on an action to correct inventorship brought under § 256); Kevin C. McGrath & Thomas D. Kohler, *Can Inventorship Be Challenged in a PGR Proceeding?*, DRM (Dec. 5, 2016), <https://www.drm.com/resources/can-an-inventorship-be-challenged-in-a-pgr-proceeding/>.

⁹⁶ *Fixing Inventorship Problems in U.S. Patent Applications and U.S. Patents*, RATNER PRESTIA (2022), <https://www.ratnerprestia.com/2014/02/16/fixing-inventorship-problems-in-u-s-patent-applications-and-u-s-patents/> (last visited Jan. 30, 2022); 37 C.F.R. § 1.48(a) (2011) (pre-AIA); 37 C.F.R. § 1.48(a) (2022) (AIA).

⁹⁷ *Fixing Inventorship Problems in U.S. Patent Applications and U.S. Patents*, RATNER PRESTIA (2022), <https://www.ratnerprestia.com/2014/02/16/fixing-inventorship-problems-in-u-s-patent-applications-and-u-s-patents/> (last visited Jan. 30, 2022); 37 C.F.R. § 1.48(a) (2011) (pre-AIA); 37 C.F.R. § 1.48(a) (2022) (AIA).

⁹⁸ *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367 (Fed. Cir. 2020); *Stark v. Advanced Magnetics*, 119 F.3d 1551, 1554-56 (Fed. Cir. 1997).

⁹⁹ U.S. PAT. & TRADEMARK OFF., MPEP §1.324 (9th ed. 2020).

was made without deceptive intent.¹⁰⁰ If an inventor refuses to sign such a statement, their employer (the party showing sufficient proprietary interest) may sign on their behalf.¹⁰¹

On its surface, the overall changes to Section 256 and similar changes to 35 U.S.C. § 251 (Section 251) seem to facilitate an easier path to correct inventorship for the patent owner. An owner needs one fewer statement from each inventor and does not fear allegations of deceptive intent invalidating their patent during the correction process. This is likely why university and technology transfer offices advocated for removing the deceptive intent burden since at least 2005.¹⁰² They, like other companies attempting to profit off their employee-created inventions, are much more likely to end the procedure of correcting patent inventorship with a valid patent when the AIA rules apply. 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.

¹⁰⁰ *Fixing Inventorship Problems in U.S. Patent Applications and U.S. Patents*, RATNER PRESTIA (2022), <https://www.ratnerprestia.com/2014/02/16/fixing-inventorship-problems-in-u-s-patent-applications-and-u-s-patents/> (last visited Jan. 30, 2022).

¹⁰¹ U.S. PAT. & TRADEMARK OFF., MPEP §604 (9th ed. 2020) (noting that “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. Jessica L. Roberts & Adriana L. Burgy, *Reissue Basics*, FINNEGAN (July 6, 2017), <https://www.finnegan.com/en/insights/blogs/prosecution-first/reissue-basics.html>; JEROME ROSENSTOCK, PATENT INTERFERENCE PRACTICE HANDBOOK §8[A], at 8-18.10 (1998 & Supp. 2007). Before the AIA, the option to reissue the patent due to improper inventorship was unavailable to assignees whose error arose out of a deceptive intention. *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367 (Fed. Cir. 2020) (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 (footnote 4)). 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. 35 U.S.C. §251. Moreover, because “the reissue application does not seek to enlarge the scope of any of the claims of the original patent,” the assignee can file for the correction without any statement from an inventor regarding the original error. U.S. PAT. & TRADEMARK OFF., MPEP §1412.04 (9th ed. 2014), https://mpep.uspto.gov/RDMS/MPEP/E9_R-11.2013#E9_R-11.2013/d0e138159.html (archived edition); 37 C.F.R. § 1.172; Flora M. Amwayi, *Correcting Inventorship During Litigation: Why, Why, How*, FINNEGAN (July 31, 2012), <https://www.finnegan.com/en/insights/articles/correcting-inventorship-during-litigation-when-why-how.html>.

¹⁰² “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.” 157 CONG. REC. S1378 (daily ed. Tuesday Mar. 8, 2011).

Moreover, the elimination of 35 U.S.C. § 102(f) (Section 102(f)), which stated in relevant part, that 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.¹⁰³ When the AIA eliminated this clause, they believed they were eliminating it out of redundancy, claiming that the Constitution and 35 U.S.C. 101 (Section 101) both “specify that a patent may only be obtained by the person who engages in the act of inventing.”¹⁰⁴ The Constitution allows inventors to secure for “limited Times...the exclusive Right to their...Discoveries.”¹⁰⁵ Section 101 says that “whoever invents or discovers any new [invention] may obtain a patent therefor.”¹⁰⁶ This language is paralleled in 35 U.S.C. § 171, describing entitlement for design patents.¹⁰⁷

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...”¹⁰⁸ 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, post-AIA Section 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.¹⁰⁹ To an average inventor who was left off 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 Section 102(f), the burdens of proof to pursue such an avenue are even more unclear.

Instead of a deceptively non-joined inventor being able to either 1) negotiate with their employer, asking them to be rightfully named as an inventor in exchange for a statement saying that all inventors did not act deceptively or 2) sue to invalidate the patent for the actions of their fellow inventors, the wronged inventor now only appears to have the former avenue to pursue under the wording of Section 256. This, like removing

¹⁰³ Pre-AIA 35 U.S.C. § 102(f).

¹⁰⁴ Joseph Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435 (2012).

¹⁰⁵ U.S. CONST. art. I, § 8, cl. 8.

¹⁰⁶ 35 U.S.C. § 101 (1952).

¹⁰⁷ 35 U.S.C. § 171 (2012).

¹⁰⁸ Joseph Matal, *A Guide to the Legislative History of the America Invents Act: Part I of II*, 21 FED. CIR. B.J. 435, 452 (2012) (citing *In re Warner*, 379 F.2d 1011 (C.C.P.A. 1967)).

¹⁰⁹ Flora M. Amwayi, *Correcting Inventorship During Litigation: Why, Why, How*, FINNEGAN (July 31, 2012), <https://www.finnegan.com/en/insights/articles/correcting-inventorship-during-litigation-when-why-how.html>.

Section 102(f), further muddies the waters of patent law and disadvantages those who are not as educated about their patent rights, because deceptive intent – now subsumed by inequitable conduct – can still invalidate a patent under the AIA.¹¹⁰

The question then arises: why would a lay person’s ability to infer their patent rights be important in inventorship disputes, especially if they have access to a patent attorney at their company? As stated above, when applying for a patent, most employees do not file with their own attorney or under the advisement of their own attorney. Generally, a company hires a patent attorney to file a patent application in the course of representation.¹¹¹ 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. Many inventors likely do not believe they need an external attorney during this process because they believe their interests are being met. At the time of applying for a patent, that is likely true, especially for the inventors who are included in the process. However, that is unlikely to be true for an inventor who was not included. For those non-joined inventors, clear notice of rights in lay language becomes important.¹¹²

In other words, amending Section 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.”¹¹³ This failed to give notice to

¹¹⁰ “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.” 2 DONALD S. CHISUM, CHISUM ON PATENTS § 2.04 (Matthew Bender 2022).

¹¹¹ ANDY GIBBS & BOB DEMATTEIS, ESSENTIALS OF PATENTS 230 (John Wiley & Sons 2003).

¹¹² The USPTO has stated that “increased access to financial and educational resources” may help to close the racial and gender patent gaps in the US. If disparate understanding of rights and how to pursue them causes a patent gap, language that is unclear even from an attorney’s perspective likely will further contribute to the persistent inventorship gaps. 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. Dianna G. El Hioum & Gregory Logan, *USPTO Has Ways to Improve Patent Diversity and Inclusion*, B. L. (Oct. 13, 2021, 4:01 AM), <https://news.bloomberglaw.com/ip-law/uspto-has-ways-to-improve-patent-diversity-and-inclusion>.

¹¹³ Patrick A. Doody, *Comprehensive Legislative History of the Leahy-Smith America Invents Act*, PILLSBURY LLP, <https://www.pillsburylaw.com/images/content/4/0/v2/4067/AIA-LegislativeHistory-final.pdf>.

the non-joined inventor that they had a right to invalidation of the patent, and that the inequitable conduct of their co-inventors likely rendered the patent economically worthless after a proceeding under 37 C.F.R. 1.56.¹¹⁴ This failed to restore their right to pursue invalidation through an inexpensive procedure at the USPTO, rather than through litigation.¹¹⁵ Finally, because of these failures, the AIA deprives deceptively non-joined inventors of a full review under Section 256. If there was deceptive intent, parties could not undergo a Section 256 correction. The certificate under Section 256 is presumed valid in the court system.¹¹⁶ 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 CFR 1.56.

37 C.F.R. 1.56 discusses the “duty to disclose information material to patentability.”¹¹⁷ It explains that “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.”¹¹⁸ 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.”¹¹⁹ The inventors and the attorneys responsible for filing and prosecuting the patent application must disclose all information material to patentability – including inventorship.¹²⁰

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

¹¹⁴ I note that, until a competitor invalidates the patent, the attribution inventors receive for being named on a patent 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).

¹¹⁵ 37 C.F.R. § 1.20 (2022) (noting that the fee for correcting inventorship in a patent is \$150).

¹¹⁶ See *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1288 (Fed. Cir. 2011) (en banc).

¹¹⁷ 37 C.F.R. § 1.56 (2022).

¹¹⁸ 37 C.F.R. § 1.56 (2022).

¹¹⁹ 37 C.F.R. § 1.56 (2022). This duty extends beyond issuance. See *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1288 (Fed. Cir. 2011) (en banc).

¹²⁰ 37 C.F.R. § 1.56 (2022); Patent Reform Act of 2007: Report (to Accompany H.R. 1908) (including Cost Estimate of the Congressional Budget Office) (“Disclosure of material information concerning a matter or proceeding before the office and the absence of such deception the office acting reasonably would on the record before it have made a prima facie finding of unpatentability.”)

to be material to patentability.”¹²¹ In other words, each inventor is responsible for including information disclosure statements with all information they know will be relevant to patentability of the claims in the application.¹²² If an inventor was not included in the patent process, the included inventors may not disclose all relevant information to the USPTO, if only because not all of the relevant inventors had the opportunity to disclose. The USPTO may view the inventors as all in agreement to the patent application process – as shown by all included inventors signing inventorship declarations – when such may not be true if all true inventors were included.¹²³

This is all in addition to the original materiality issue: that incorrect inventorship by itself renders a patent invalid if it cannot be corrected.¹²⁴ 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.¹²⁵ 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.¹²⁶

The invalidation channel is even further hidden from view after the AIA amendments than before the AIA. Like the amendments to Section

¹²¹ 37 C.F.R. §1.56 (2022).

¹²² U.S. PAT. & TRADEMARK OFF., MPEP §609 (9th ed. 2020).

¹²³ *Declaration (37 CFR 1.63) for Utility or Design Application Using an Application Data Sheet (37 CFR 1.76)*, U.S. PAT & TRADEMARK OFF., available at <https://www.uspto.gov/sites/default/files/documents/aia0001.pdf>.

¹²⁴ See 35 U.S.C. § 256; 35 U.S.C. § 101; 35 U.S.C. § 171; *Egenera, Inc. v. Cisco Sys.*, 972 F.3d 1367, 1376 (Fed. Cir. 2020).

¹²⁵ The assignee may seek such correction if the non-joined inventor assigned all patent rights to their employer.

¹²⁶ See *GS Cleantech Corp. v. Adkins Energy LLC*, 951 F.3d 1310 (Fed. Cir. 2020).

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 EDT), <https://www.uspto.gov/patents/laws/america-invents-act-aia/inter-partes-disputes>. Furthermore, inequitable conduct cannot be brought under a post-grant review. Mark J. Feldstein, et al., *Where Are All the PGRs?*, Finnegan (Dec. 6, 2019), <https://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.”).

102(f) discussed above, a non-joined inventor is at a significant legal knowledge disadvantage when encountering the inequitably acquired patent. In a company setting, they may approach the company's patent 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. In all three scenarios, the non-joined inventor may see the forms to correct the inventorship with the relevant law (37 CFR 1.324, Section 256, or Section 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.¹²⁷ The reason is simple: it may be a conflict of interest for the company attorney to tell the employee.¹²⁸ 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 in 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.¹²⁹ 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.¹³⁰ 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.¹³¹ As of January 2022, there has been no

¹²⁷ The second option may not be available to all inventors if the employee contract does not allow such an action.

¹²⁸ Josephine Sandler Nelson, *The Conflict of Interest Inherent in a Corporation Paying for Its Employee's Counsel*, BERKELEY L. (Aug. 19, 2013, 7:41 AM), <https://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/>.

¹²⁹ Adriana L. Burgy, et. al., *AIA Supplemental Examination Nuts and Bolts*, Finnegan (June 3, 2019), <https://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>.

¹³⁰ 37 C.F.R. § 1.601(a) (2022); 37 C.F.R. § 1.601(c) (2022).

¹³¹ Burgy, *supra* note 129.

judicial decision where a supplemental examination proceeding protected a patent from an allegation of inequitable conduct of any kind.¹³²

This may be because, under *Therasense v. Beckton*, the Federal Circuit raised the burden for inequitable conduct – requiring that the party asserting invalidity must prove inequitable conduct through but-for materiality under a clear and convincing evidence standard.¹³³ This provided yet another protection for the corporate entity and inequitably acting inventor that went untouched by corrections to 35 USC § 256. After the AIA, if a deceptively non-joined inventor wanted to invalidate the patent instead of correct inventorship, they must 1) prove by clear and convincing evidence that there was inequitable conduct that resulted in improper inventorship 2) show by clear and convincing evidence that – if the USPTO was aware of the omitted information (their inventive identity) – the USPTO would not have allowed the claim, and 3) be aware of these remedies before inventorship is corrected without their input through a reissue.

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 wronged inventors 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 Section 256 proceeding. 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.

This is further compounded by the inefficient result that one party can simultaneously correct a patent's inventorship only to invalidate it.

IV. HARMS AND REMEDIES

¹³² 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 Oct. 6, 2018 without mentioning the supplemental examination.

¹³³ Daniel Parrish, *Supplemental Examination and Inequitable Conduct*, 4 MITCHELL HAMLIN L. REV. 156 (2013). *Therasense Inc. v. Becton Dickinson and Co.*, 649 F.3d 1276, 1288 (Fed. Cir. 2011) (en banc). Jeffrey M. Jacobstein, *Therasense: Raising the Bar for Inequitable Conduct*, Finnegan (July 2011), <https://www.finnegan.com/en/insights/articles/therasense-raising-the-bar-for-inequitable-conduct.html>.

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

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) without attributing Cholkar as an inventor.¹³⁴ 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.¹³⁵ 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.¹³⁶ 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 company [and] patented the formulation without naming Dr. Cholkar as an inventor . . ." The university received \$6.45 million in a settlement and, out of that settlement, gave Cholkar at least \$1.4 million.¹³⁷

¹³⁴ *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>; 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/>.

¹³⁵ Complaint, Curators of Univ. of Mo. v. Mitra, Docket No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019) (Bloomberg).

¹³⁶ Complaint, Curators of Univ. of Mo. v. Mitra, Docket No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019) (Bloomberg).

¹³⁷ 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/>.

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.¹³⁸ First, after Mitra's actions, are the patents in question still valid? Second, was (and is) Cholkar aware of the potential to invalidate the relevant patents for Dr. Mitra's alleged inequitable conduct?¹³⁹

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 likely claim that the patents are unenforceable due to 1) improper inventorship listed on the patents, 2) Dr. Mitra's alleged inequitable conduct, or both.¹⁴⁰ According to the complaint, UMKC sought "correction of the inventorship of the [patents] to add Dr. Cholkar as an inventor."¹⁴¹ They did not simultaneously seek to remove Dr. Mitra from the patents, thereby implying that he is also a rightful inventor.¹⁴²

Under Section 256, Dr. Mitra's and Dr. Cholkar's intentions when the patent applications were filed or issued as patents are irrelevant.¹⁴³ UMKC, as an assignee of the entire right, title, and interest, can correct the inventorship.¹⁴⁴ 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

¹³⁸ 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, inventor information (showing only Ashim K. Mitra and Sidney L. Weiss).

¹³⁹ The availability of this option with respect to standing and contractual obligations between Dr. Cholkar and UMKC will not be addressed in this Article.

¹⁴⁰ Jill K. MacAlpine, Amanda K. Murphy, Adriana L. Burgy & Stacy Lewis, *It All Starts with Inventorship*, FINNEGAN: PROSECUTION FIRST BLOG (Feb. 5, 2021), <https://www.finnegan.com/en/insights/blogs/prosecution-first/it-all-starts-with-inventorship.html>.

¹⁴¹ Complaint, Curators of Univ. of Mo. v. Mitra, Docket No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019) (Bloomberg).

¹⁴² Complaint, Curators of Univ. of Mo. v. Mitra, Docket No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019) (Bloomberg) (noting that UMKC did not petition to remove Dr. Mitra as an inventor.).

¹⁴³ Leslie A. McDonell, *AIA Breathes Life into Inventorship Correction in PTO*, FINNEGAN (Nov. 1, 2013), <https://www.finnegan.com/en/insights/articles/aia-breathes-life-into-inventorship-correction-in-pto.html> (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.").

¹⁴⁴ See Complaint, Curators of Univ. of Mo. v. Mitra, Docket No. 4:19-cv-00143 (W.D. Mo. Feb 26, 2019) (Bloomberg); 35 U.S.C. § 256.

unenforceable if challenged in court.¹⁴⁵ 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.¹⁴⁶

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.¹⁴⁷ Dr. Mitra filed one of the patents in question on August 23, 2013, claiming priority to a provisional application filed on August 24, 2012.¹⁴⁸ 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. Still, in the settlement, UMKC received \$6.45 million and retained \$5.05 million after giving approximately \$1.4 million to Dr. Cholkar.¹⁴⁹

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.¹⁵⁰ Furthermore, given that Dr.

¹⁴⁵ U.S. PAT. & TRADEMARK OFF., 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. *See* *Therasense Inc. v. Becton Dickinson and Co.*, 649 F.3d 1276, 1288 (Fed. Cir. 2011) (en banc).

¹⁴⁶ 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/> (noting that the university believes it "could be a billion-dollar product").

¹⁴⁷ 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/> (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.").

¹⁴⁸ U.S. Patent No. 8,980,839, continuity data (showing priority claim to U.S. provisional patent application 61/693,189).

¹⁴⁹ 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/>.

¹⁵⁰ 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, e.g.,* Heather Waldbeser & Heather DeGrave, *A Plaintiff's Lawyer's Dilemma: The Ethics of Entering a Confidential*

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

The UMKC case in light of the history of Section 256 illustrates answers to the questions posed in the introduction of this Article.

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. UMKC can – for the time being – collect royalties for their still active patents and kept over \$5 million from a settlement with Dr. Mitra. 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.

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. 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 America Invents Act actually remove the deceptive intent requirement? No – though the words “deceptive intent” no longer appear in Section 256, the duty to not behave deceptively when naming patent inventors is still codified in 37 CFR § 1.56. As addressed in *Frank's Casing Crew & Rental Tools, Inc.*, decided only a few years after *Stark*, the Federal Circuit determined that correction of inventorship under Section 256 could be decided separately from whether a patent was enforceable due to inequitable conduct.¹⁵¹ The deceptive intent requirement for dealing with

Settlement, 16 GEO. J. LEGAL ETHICS 815 (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 (1999).

¹⁵¹ *Frank's Casing Crew & Rental Tools, Inc. v. PMR Techs., Inc.*, 292 F.3d 1363 (Fed. Cir. 2002).

the USPTO, therefore, resides in the duty of disclosure, candor, and good faith in 37 CFR § 1.56.¹⁵²

Herein, I propose two main remedies to rebalance remedies to correct misattribution. First, I propose an amendment to Section 256 to resolve notice of remedies regarding inequitable conduct, realign the section to reflect Congressional intent, and empower deceptively non-joined inventors. 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.

1. Section 256 Amendment

In addition to clarifying that only inventors can obtain a patent,¹⁵³ I propose an amendment to Section 256 to 1) clarify the intersection between correct inventorship and inequitable conduct and 2) reduce the duplicative lawsuits to correct inventorship and then render the patent unenforceable for the inequitable conduct that caused the originally incorrect inventorship.

My proposed amendment to Section 256 is below, underlining language I propose to add:

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.

¹⁵² PerSeptive Biosys., Inc. v. Pharmacia Biotech, Inc., 12 F. Supp.2d 69 (D. Mass. 1998); see also PerSeptive Biosys., Inc. v. Pharmacia Biotech, Inc., 12 F. Supp.2d 69, 72 (D. Mass. 1998) (citing Stark v. Advanced Magnetics, 119 F.3d 1551 (Fed. Cir. 1997)) (resolving an inventorship dispute by determining an inventor engaged in inequitable conduct. “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.

¹⁵³ 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*, PATENTLYO (Oct. 4, 2012), patentlyo.com/patent/2012/10/with-102f-eliminated-is-inventorship-now-codified-in-35-usc-101.html (showing that some attorneys believed the elimination of 102(f) eliminates the inventorship requirement and thus will allow an individual who is not an inventor to obtain a patent).

This is similar to the but-for rule put forth in *Therasense* and proposed in the Federal Register in 2016, proposing 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.”¹⁵⁴ Though this proposal was never adopted, the 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 Section 256 process. This is especially important for lay inventors correcting a patent at the behest of a company attorney. Second, this amendment aligns with Congressional intent to facilitate “correction of prosecution errors and reduc[e] litigation burdens.”¹⁵⁵ 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 US court system.¹⁵⁶ 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.

¹⁵⁴ <https://www.govinfo.gov/content/pkg/FR-2016-10-28/pdf/2016-25966.pdf>; *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 PTO, that prior art is but-for material if the PTO would not have allowed a claim had it been aware of the undisclosed prior art.”).

¹⁵⁵ Robert A. Armitage, *The Role of the America Invents Act in Ending the Plague of “Inequitable Conduct” Allegations*, 4 LANDSLIDE 1 (2012); Orion Armon, *The Leahy-Smith America Invents Act*, COOLEY LLP, https://www.law.berkeley.edu/files/bclt_New_Patent_Law_Explained_Panel_1-Litigation_Changes.pdf (last visited on Jan. 30, 2022); Patrick A. Doody, *Comprehensive Legislative History of the Leahy-Smith America Invents Act*, PILLSBURY LLP, <https://www.pillsburylaw.com/images/content/4/0/v2/4067/AIA-LegislativeHistory-final.pdf>.

¹⁵⁶ See e.g., *Frank’s Casing Crew & Rental Tools, Inc. v. PMR Tech., Ltd.*, 292 F.3d 1363 (Fed. Cir. 2002); *PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc.*, 225 F.3d 1315 (Fed. Cir. 2000) (showing that inequitable conduct in intentionally failing to name a joint inventor may result in a patent being found to be unenforceable). I will discuss duplicity of actions in patent litigation and PTAB actions in a future work. See *Anderson Corp. v. GED Integrated Solutions, Inc.*, DER2017-00007, Paper 32 (P.T.A.B. Mar. 21, 2018).

I also note that, in honor of *Stark*, I ensured there was a comma to signal that the inequitable conduct exception applies to both misjoinder and non-joinder.¹⁵⁷

2. Supplemental Examination Reform

In addition to Section 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.”¹⁵⁸ As 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.”¹⁵⁹ If the new “information presented in the request [for supplemental examination] raises a substantial new question of patentability (SNQ)...the patent proceeds to *ex parte* reexamination.”¹⁶⁰ However, if there is no finding of an SNQ, the supplemental examination certificate “estop[s] any future unenforceability challenges based on the submitted information.”¹⁶¹ Currently, only patent owners can request supplemental examination,¹⁶² 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 “satisfy[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”¹⁶³, then access to such examination should not be limited to just patent owners. An expansion of supplemental examination access, however, should not occur without

¹⁵⁷ *Stark v. Advanced Magnetics*, 119 F.3d 1551 (Fed. Cir. 1997). I expect to explore the most impactful commas in U.S. history in a future work.

¹⁵⁸ Michele C. Bosch et. al., *A Tale of Two Supplemental Examinations: Part 1: Unraveling Confusions*, Finnegan (June 6, 2019), <https://www.finnegan.com/en/insights/blogs/prosecution-first/a-tale-of-two-supplemental-examinations-part-1-unraveling-confusion.html>.

¹⁵⁹ See *supra* Section III B; 35 U.S.C. § 257 (2011); 37 CFR § 1.601(a).

¹⁶⁰ Adriana L. Burgy, et. al., *AIA Supplemental Examination Nuts and Bolts*, Finnegan (June 3, 2019), <https://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>; 35 U.S.C. § 257(a) (2011).

¹⁶¹ Adriana L. Burgy, et. al., *AIA Supplemental Examination Nuts and Bolts*, Finnegan (June 3, 2019), <https://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>.

¹⁶² 35 U.S.C. § 257 (2011).

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

restriction. If supplemental examination were accessible to all third-parties, 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.¹⁶⁴ 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.

V. CONCLUSION

Congress must amend the AIA to realize its original goal of bolstering economic development.¹⁶⁵ 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. Changes to Section 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. 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 informs all actors of the importance of candor and

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

¹⁶⁵ Paul Morinville, *How the America Invents Act Harmed Inventors*, IPWATCHDOG (Sept. 10, 2016), <https://www.ipwatchdog.com/2016/09/10/america-invents-act-harmed-inventors/id=72551/>.

honesty before the USPTO. 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.¹⁶⁶

¹⁶⁶ *See id.*