

No. 10-

IN THE
Supreme Court of the United States

FRANK T. SHUM,

Petitioner,

v.

INTEL CORPORATION, LIGHTLOGIC, INC., and
JEAN-MARC VERDIELL,

Respondents.

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

PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

- I. Whether a plaintiff has standing under Article III of the U.S. Constitution to assert federal inventorship issues subsumed within his state law claims in a removed state court complaint when defendants, the parties asserting federal jurisdiction, claim that plaintiff suffered no injury and cannot receive any benefit from his success on these federal issues.

- II. Whether a patent co-owner who is defrauded by his fellow co-owner's assignment of the "sole and exclusive" patent rights has any continuing rights in those patents, or may the federal courts disregard the evidentiary and legal importance of those fraudulent patent assignments, and grant judgment as a matter of law to defendants.

- III. Whether defendants, the losing party on plaintiff's federal correction of inventorship claims which gave rise to federal subject matter jurisdiction, should be deemed the "prevailing party" for cost award purposes under F.R.C.P. Rule 54 on the grounds that the plaintiff did not receive any benefit from that victory.

**PARTIES TO THE PROCEEDINGS IN
THE FEDERAL CIRCUIT**

Petitioner is Frank Shum who was the plaintiff in the district court and the appellant in the court of appeals.

Respondents are Intel Corporation, LightLogic, Inc., and Jean-Marc Verdiell who were defendants in the district court and the appellees in the court of appeals.

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PETITION FOR WRIT OF CERTIORARI

Frank Shum respectfully petitions for a writ of certiorari to review the judgments of the Federal Circuit, cases 2010-1109 and 2009-1385, -1419.

OPINIONS BELOW

The opinions of the court of appeals are reported at *Shum v. Intel Corp.*, 633 F.3d 1067 (Fed. Cir. 2010) (merits) and 629 F.3d 1360 (Fed. Cir. 2010) (costs), and are reprinted in the Appendix to the Petition (“Pet. App.”) at 1a-42a and 43a-68a, respectively. The district court’s opinions are reported at *Shum v. Intel*, 630 F.Supp.2d 1063 (N.D. Cal. 2009) (merits) and 682 F.Supp.2d 992 (N. D. Cal 2009) (costs), and reprinted at Pet. App. 96a-136a and 142a-162a, respectively.

JURISDICTION

The court of appeals entered its judgment on December 22, 2010. Timely petitions for rehearing were denied on February 24, 2011. This court has jurisdiction pursuant to 28 U.S.C. § 1254 (1). Federal courts, however, have never had jurisdiction over this state court lawsuit regarding patent ownership rights because, as explained in this petition, it does not raise a federal case or controversy under Article III, U.S. Constitution.

**RELEVANT AND CONSTITUTIONAL
STATUTORY PROVISIONS**

1. United States Constitution, Article III, Section 2, in relevant part:

The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States

2. Federal Rules of Civil Procedure, Rule 54(d)(1), in relevant part:

Unless a federal statute, these rules, or a court order provides otherwise, costs – other than attorney’s fees – should be allowed to the prevailing party.

STATEMENT OF THE CASE

This case presents a fundamental question about the limits, if any, on federal courts’ ability to impose their jurisdiction over disputes filed in state courts asserting state law claims related to the ownership and tortious misappropriation of intellectual property rights. The Federal Circuit concluded that the plaintiff had Article III standing to proceed in federal court – against his wishes – even though defendants, who removed the complaint to federal court on the purported necessity of deciding plaintiff’s implied inventorship allegations, later reversed the entire theory of their case, and argued that state law, not federal law, issues were determinative. The Federal Circuit never reconciled its own conclusions, that Plaintiff’s ultimate success on those federal inventorship

claims did not provide him with any valuable benefit, with the strict jurisdictional standing hurdles of “injury-in-fact, causation and redressability” imposed by U. S. Constitution Article III, and repeatedly emphasized by this Court.

The Federal Circuit decision on subject matter jurisdiction directly conflicts with numerous controlling decisions of this Court which limit the federal court’s jurisdiction to actual “cases and controversies” where the plaintiff may gain something from his federal claim. The decision also directly conflicts with another recent Federal Circuit decision, which followed this Court’s precedents, and specifically held that under Article III a state court complaint which arguably entails federal patent inventorship issues cannot be removed to federal court if the plaintiff must first succeed on his state law claims to recover monetary damages. *Larson v. Correct Craft, Inc.*, 569 F.3d 1319 (Fed. Cir. 2009). On the merits, the Federal Circuit decided issues of California law, including the interpretations and implications of private contracts and assignments, and the applicability of fiduciary duty and fraud law to plaintiff’s claims, without ever reconciling how it had jurisdiction over these claims in the first place, in light of defendants’ latest theory that plaintiff could not recover any “actionable benefit” under federal law because he had always had co-ownership rights in patents under California law. This case therefore presents an issue that is of the utmost importance, implicating the reach, power and integrity of the federal courts. Here, federal courts insisted on adjudicating issues of state law when the defendants themselves effectively concede the basis of their removal to federal court was wrong.

After nearly ten years of litigation, millions of dollars in legal expenses, an earlier opinion by the Federal Circuit affirming Shum's right to a jury trial under *Beacon Theaters, Inc. v. Westover*, 359 U.S. 500 (1959), unanimous jury verdicts on patent inventorship claims in Shum's favor, and a hung jury on liability issues related to plaintiff's state law claims, the Federal Circuit in companion cases, on the merits and affirming a costs award, concluded that Shum could not prevail on any of his state law claims as a matter of law. Moreover the Federal Circuit found that defendants were the "prevailing parties" in the litigation deserving a cost award under F.R.C.P. Rule 54, despite the incontrovertible jury verdicts in Shum's favor. These opinions rested in significant part on the Federal Circuit's view that defendants somehow never deprived the plaintiff of his patent co-ownership interests or injured him in any manner – despite defendants' undeniably fraudulent patent assignments filed in the US PTO through which they claimed and transferred the "sole and exclusive" ownership rights – including plaintiff's co-ownership rights in those patents. Judge Newman dissented on both the merits and costs opinions. She refused to participate in her "colleagues' improper procedure" in depriving Shum (for a second time) of his right to a jury trial on his state law claims (Pet. App. 34a), and believed the substantial monetary cost award to the losing parties in the federal correction of inventorship claims was "so flawed" and raised "important concerns about justice and fairness, as well as conformity with rule and precedent" (Pet. App. 62a).

The Federal Circuit's decisions are indeed "so flawed" – on the most important and fundamental issue possible, that of federal subject matter jurisdiction – that they require correction by this Court.

A. Factual Background

Frank Shum (“Shum”) and Jean-Marc Verdiell (“Verdiell”) co-founded a company called Radiance Design Inc. (“Radiance”). At Radiance, Shum, the company’s Chief Engineer, and Verdiell, its business manager, co-invented optoelectronic technologies which were highly valued during the telecom explosion of the late 1990’s. The relationship between Shum and Verdiell deteriorated and Radiance was dissolved. The Radiance Plan of Liquidation (“POL”) stated that both Shum and Verdiell had “equal rights to independently exploit the intellectual property developed by [Radiance].” Since Radiance was co-owned by Shum and Verdiell, both had equal ownership rights to all the patents at issue created at Radiance, which was merely reaffirmed in the POL – this was a critical fact that defendants only admitted several years into this litigation but denied initially in order to obtain removal to federal court. Notably, the POL did not specifically identify the “intellectual property developed by [Radiance]” and instead relied upon the parties to honestly represent to third parties what technology had been developed at Radiance, and thus was subject to the POL.

Verdiell was not honest. During Radiance’s dissolution, Verdiell had secretly set up another company, LightLogic. Just *one day* after entering into the POL, Verdiell filed a patent application on Shum’s and his technology, claiming Verdiell as the sole inventor. He then assigned that patent to LightLogic, claiming to be “the sole and lawful owner of the entire right, title, and interest in and to said inventions.” Verdiell then continued this same fraud with six other patents related to the same Radiance technology, filing applications, each one claiming sole inventorship, and assigning to himself “exclusive rights.”

Verdiell and LightLogic thereafter touted these so-called exclusive rights in the technology as his own invention, developed by Verdiell alone *after* Radiance’s dissolution. At least in part because of LightLogic’s fraudulent patents (every single one of which were originally Radiance IP co-owned by Shum), Intel Corporation (“Intel”) acquired LightLogic, together with the assignments for the “sole and exclusive” rights in the patents, for a sum of \$409 million. Verdiell personally received \$57 million from that transaction. He never told Shum about the transaction or gave him any compensation. After Shum learned of the sale, he investigated his options, including whether he had remaining rights in the patents, but Intel refused to acknowledge that Shum had any rights in the technology, let alone co-ownership rights, and continued to maintain its “exclusive rights” patent assignments in the PTO. Shum sued.

B. Proceedings Below

Shum chose to pursue claims against Verdiell and his corporate codefendants (Intel had agreed to indemnify LightLogic and Verdiell) in state court seeking only money damages, not a declaration of his inventorship rights in federal court. His original and amended state law complaints asserted only state law claims, including claims for fraud and conversion, against Verdiell and the other defendants. In fact, in his state law complaint, Shum pled a state law basis – rights espoused under the POL, not merely federal inventorship rights – for his recovery under all of his claims. For example, Shum pled, with regard to all his claims that defendants’ misconduct was “a fraud upon Plaintiff, and intended by Defendants to deprive Plaintiff of the value of Mr. Shum’s inventions

and the **benefits of the Radiance Plan of Liquidation.**” First Amended Complaint, ¶21, Pet. App. 189a, (emphasis added).

Defendants removed the complaint to the federal district court for the Northern District of California on the grounds that Shum’s complaint required a determination of inventorship under 35 U.S.C. 256. Shum moved to remand. Defendants opposed, arguing that Shum’s success on his inventorship claims would be a necessary prerequisite for him to prevail on his state law claims because Shum had no ownership interests – and defendants were correctly designated the sole inventors and owners – since the patents had been invented by Verdiell alone, after he left Radiance. The district court agreed with defendants and determined, at least with regard to Shum’s fraud claim, that it required a determination whether Verdiell was in fact the “sole” inventor, thereby invoking a federal claim under 35 U.S.C. § 256 and federal jurisdiction.

The litigation continued for years, with Shum amending to add formal claims for correction of inventorship which the district court and defendants deemed “necessary” to support his state law claims. The district court granted judgment to defendants on all claims, but in 2007 the Federal Circuit reversed, citing *Beacon Theaters*, and holding that Shum’s Seventh Amendment jury trial right had been abrogated when the district court held a bench trial on inventorship without considering the facts related to his state law claims. *Shum v. Intel Corp.*, 499 F.3d 1272, 1277-78 (Fed. Cir. 2007). Then, with two new litigation strategies, defendants, startlingly, reversed course and completely recanted their basis for removal to federal court. First, they conceded through sworn

discovery responses that the inventions referred to in the complaint were in fact all invented at Radiance (the jury would later conclude they were invented in significant part by Shum) and unquestionably co-owned equally by Shum and Verdiell. Thus, although defendants had originally argued that Shum's complaint had to be removed to federal court because the only way for Shum to prove ownership rights was through proving inventorship, this defense proved concocted and undeniably false. Defendants now specifically acknowledge Shum's co-ownership rights under state law as confirmed by the POL – as Shum had alleged in his complaint.¹

Second, anticipating a devastating loss on their now unsupportable claims to sole inventorship – and sole ownership – at the upcoming second trial following remand in 2008, defendants contended that any “unlawful patenting” could not possibly have damaged Shum, since he had co-ownership rights in the patents under the POL all along. They wrote in summary judgment motions that

Because Shum and defendants are co-owners with equal rights to exploit Radiance IP – regardless of who invented the Radiance IP – an allegedly incorrect designation of inventorship cannot unjustly enrich defendants as a matter of law.

Defendants' April 4, 2008 Motion for Summary Judgment, p. 7:22-24.

1. Yet, defendants still refuse to correct their now admittedly fraudulent patent assignments filed in the US PTO. Instead, they now argue that the POL somehow “released” their fraudulent conduct because it did not impose on Shum and Verdiell a “duty to account” to each other.

Defendants repeated their new theme that Shum's inventorship claims, even if successful, were of no legal consequence and could not possibly result in any injury to Shum:

Because Shum and Verdiell are *co-owners* of any patented Radiance technology, any unlawful failure to name Shum on any patent based on Radiance technology could not, as a matter of law, confer any actionable benefit.

Defendants' June 27, 2008 Motion for Summary Judgment, p. 7:12-14.

Just before trial, the district court granted summary judgment to defendants on Shum's state law fiduciary duty and fraudulent concealment claim through a questionable reading of California law. *See* Judge Newman's dissenting opinion, Pet. App. 35a-37a. At trial, Shum finally successfully obtained unanimous jury verdicts in his favor on his important co-inventorship claims. The jury was hung on his remaining state law claims for unjust enrichment, fraud, and breach of contract, though according to informal juror interviews, they leaned 9-1 in Shum's favor.

On post-trial motions, the district court upheld the inventorship verdicts in Shum's favor, but granted the JMOL to defendants on Shum's unresolved state law claims. Pet. App. 96a-136a. The court adopted defendants' argument that the inventorship verdicts in Shum's favor had no effect on his state law claims, that defendants' fraudulent patent assignments had no legal consequence, and that Verdiell and his co-defendants had not been unjustly enriched as a matter of law, on the grounds that

Shum had always had co-ownership of the patents through the Radiance POL.

Then, incredulously, Defendants, in seeking an award of costs under Rule 54, claimed to be the “prevailing party,” because of the predominance of the state law, not federal, claims and argued: “The judgment [based on the jury verdicts] declaring Shum a co-inventor, however, awarded him no greater economic rights than those he had already obtained by contract [the POL] eleven years earlier.” Defendants’ Opposition to Shum’s Motion Challenging Taxation of the Parties’ Bill of Costs, p. 1:9-10. The district court adopted defendants’ argument and awarded hundreds of thousands of dollars in costs against Shum. In doing so, the district court explained that, by virtue of the jury verdicts on inventorship, “Shum gains the legal title of being a co-inventor of certain patents but no rights to commercially exploit technology that he did not already have [under the POL].” Pet. App. 150a.

Shum filed notices of appeal on both the merits and costs decisions of the district court. Before briefing began in the Federal Circuit, Shum filed a motion to dismiss for lack of subject matter jurisdiction under Article III, specifically relying on defendants’ new state law centered theories and a case on point that had just been published by the Federal circuit, *Larson, supra*, 569 F.3d 1319. In *Larson*, the Federal Circuit held that, where a state court complaint, like Shum’s here, arguably contained a federal correction of inventorship question, but the plaintiff will not recover a “direct financial reward” from his federal claims and any award is “contingent” upon succeeding on his state law claims to void the effects of fraudulent assignments, the plaintiff lacks standing under Article III

to pursue that inventorship claim in federal court and the case must be remanded to state court. *Id.* at 1326-27. The Federal Circuit summarily denied Shum's jurisdictional motion without analysis and without requiring any response from defendants. Shum renewed his subject matter jurisdiction arguments in later briefing.

After full briefing and argument in the Federal Circuit, a two-judge majority (Judges Prost and Lourie) of the Federal Circuit, over the strongly worded dissent of Judge Newman, affirmed the district court's rulings. The majority affirmed judgment as a matter of law against Shum on his state law claims by ignoring the defendants' "exclusive rights" fraudulent patent assignments altogether and by relying on the testimony of defendants' biased witnesses, concluding that defendants never seemed interested in patent exclusivity. Pet. App. 24a. Judge Newman called this conclusion "plainly incorrect," citing the fraudulent assignments and to a record "replete with Verdiell's assertions of exclusivity." Pet. App. 65a. She further wrote that she refused to participate in what she called her "colleagues' endorsement of and participation in this improper procedure," Pet. App. 34a, which, for a second time, denied Shum his jury trial rights on his state law claims.

In its companion decision on costs, the Federal Circuit, through the same Panel Majority, decided that defendants were the only "prevailing party," owed costs under Rule 54 by Shum because his correction of inventorship verdicts did not "materially alter" the legal relationship between the parties in light of Shum's continuing state law based interest in the patents. Pet. App. 46a. More specifically, the Panel again disregarded defendants'

fraudulent patent assignments and concluded that Shum was not the prevailing party because his judgment of joint inventorship, with its consequent award of co-ownership, “did not give Shum any rights in the patented technology that he did not already have under the [parties’ private contract].” Pet. App. 58a.

Remarkably, this costs opinion affirms a very substantial award of costs to defendants even though plaintiff succeeded through unanimous jury verdicts on correction of patent inventorship in proving that defendants had in fact fraudulently filed and maintained fraudulent patent applications and assignments in the PTO for over a decade. Judge Newman characterized the costs decision as “so flawed” and raising “important concerns about justice and fairness as well as conformity with rule and precedent.” Pet. App. 62a; *see also* Pet. App. 64a, citing *Farrar v. Hobby*, 506 U.S. 103, 111-112 (1992) (even plaintiff who obtains nominal damages can be awarded costs as the “prevailing party”). Thus, even though Shum had demonstrated his co-inventorship after years of litigation and weeks of trial by “clear and convincing evidence” with mountains of contemporaneous documents that showed his paramount contributions to the Radiance patents, his victory somehow gave him no “benefit” simply because defendants finally acknowledged in the litigation – but not in the US PTO nor the marketplace – that he was always, theoretically, a co-owner of these patents, valued in the multimillions.

The Federal Circuit paid little attention to federal subject matter jurisdiction issues. In the merits and costs opinion, the court concluded that federal courts had subject matter jurisdiction in similar footnotes with

little analysis. Pet. App. 14a, fn. 4; Pet. App. 51a-52a, fn. 7. The court summarily stated that Shum’s state law claims “necessarily involved” a substantial question of federal patent law, yet the court never examined the specific allegations of the complaint as required by this court. *Christianson v. Colt Indus.*, 486 U.S. 800, 808 (1988). It distinguished *Larson* by stating that no “transfer or assignment [of patent ownership rights] had occurred in this case. Pet. App., 51a-52a, fn. 7; Pet. App. 14a, fn. 4 (“Shum has not assigned away all of his financial interest in the patents”). But later in its opinion the Panel majority contradicts its own “no assignment” conclusion by fully recognizing that Shum’s inventorship verdicts “**give Shum a property interest in the five patents**” requiring the U.S. Patent and Trademark Office “**to correct the inventorship and assignments.**” Pet. App. 56a.

The majority did not explain how Shum could have Article III standing when he, like *Larson* before him, needed to prevail on his state law claims to achieve any financial recovery. Finally, the Federal Circuit never addressed, mentioned or ever asked defendants, the party with the burden to support continuing jurisdiction, to explain how federal jurisdiction could attach to this case now that defendants agreed that state, not federal issues, were determinative of this litigation and that Shum could not possibly obtain any benefit from his success on his patent inventorship claim.

REASONS FOR GRANTING THE PETITION

The Federal Circuit's decision on federal jurisdiction creates a clear conflict with the unassailable controlling decisions of this Court and well as those within the Federal Circuit. The federal courts have yet to consider the Article III implications of defendants' argument that the plaintiff can obtain no benefit from a federal claim that purportedly provides the federal courts with jurisdiction and the plaintiff with standing. The merits ruling, ignoring the legal effects of fraudulent patent assignments, contradicts the controlling authorities of this Court and the Federal Circuit, finds no punishment for fraudulent claims to a co-owner' rights in patents, and throws into question the continuing veracity of the PTO's recording system of patent rights. The costs ruling also contradicts controlling authority of this Court and the Federal Circuit on an issue of major importance – who has to pay the exorbitant costs associated with intellectual property litigation, particularly when it is protracted through manipulative legal tactics.

I. Shum Lacks Article III Standing To Prosecute A Correction Of Inventorship Claim In Federal Court, Per Binding Supreme Court And Federal Circuit Authority As Demonstrated By The Federal Circuit's Conclusion That Shum Was Not Injured And Could Not Possibly Receive Any Direct Benefit From His Victory On His Correction Of Inventorship Verdicts Together With Defendants' Admissions That Plaintiff Always Had State Law Rights in the Patents As Alleged In The Complaint.

One of the most important principles of American jurisprudence is that federal courts are of limited

jurisdiction which must be conferred on them by the Constitution or Congress. *Kokkonen v. Guardian Life Ins. Co.*, 511 U.S. 375, 377 (1994). Their power to decide cases cannot be expanded by the judiciary and, in fact, a federal court is presumed to be without jurisdiction over an action. *Id.* The burden of establishing jurisdiction rests on the party wishing to proceed in federal court and that burden subsists through all stages of judicial proceedings, trial and appellate. *Id.*; *Lewis v. Supreme Court*, 494 U.S. 472, 477 (1990).

The Constitution, Article III, Section 2, limits the jurisdiction of the federal courts to “cases” and “controversies.” *Id.* This Court has repeatedly emphasized that standing to bring a federal case under Article III requires a showing of “injury-in-fact, causation and redressability” stemming from the claim – the “irreducible constitutional minimum of standing” which “constitutes the core of Article III’s case-or-controversy requirement, and the party invoking federal jurisdiction bears the burden of establishing its existence.” *Steel Co. v. Citizens for Better Environment*, 523 U.S. 83, 102-03 (1998) (internal citations omitted). In fact, Article III standing is “perhaps the most important” of the case-or-controversy doctrines placing limits on federal judicial power. *See Allen v. Wright*, 468 U.S. 737, 750 (1984); *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992) (“injury in fact,” “causation,” and “redressability” requirements of Article III standing are strictly enforced); *see also*, John G. Roberts, Jr., *Article III Limits on Statutory Standing*, 42 *Duke L.J.* 1219,1220 (1993) (“The legitimacy of an unelected, life tenured judiciary in our democratic republic is bolstered by the constitutional limitation of that judiciary’s power in Article III to actual ‘cases’ and ‘controversies.’”) This Court has noted that whenever there is a doubt about

Article III jurisdiction, all federal courts, including this one, are required to examine the issue. *Mt. Healthy City Sch. Dist. Bd. Of Edu. v. Doyle*, 429 U.S. 274, 278 (1977) (“Whenever a doubt arises as to the existence of federal jurisdiction” this court is “obligated to inquire.”).

Without such an inquiry, this case will represent a new “high-water mark in the dilution of federal standing requirements.” *Massachusetts v. EPA*, 549 U.S. 497, 547 (2007) (Roberts, C.J. dissenting). Here, defendants, the parties asserting federal jurisdiction, themselves contend that the plaintiff cannot demonstrate a redressable injury caused by them under the federal claim which gave rise to jurisdiction – yet the Federal Circuit, somehow, still held that the plaintiff had Article III standing.

Defendants plainly have not and cannot carry their continuing burden of demonstrating the strict “injury in fact, causation and redressability” requirements of Article III when they contend that Shum’s success on his patent inventorship claims could not possibly provide him with “any actionable benefit” – because he always had ownership rights under the POL. Pursuant to U.S. Constitution Article III, and precedent of the Supreme Court and the Federal Circuit, this case must be adjudicated in state, not federal, court, as Shum has pled from the start. *Steel Co., supra*, 523 U.S. at 101-02 (for a court to “pronounce upon the meaning of a state or federal law when it has no jurisdiction is, by very definition, for a court to act ultra vires”). If defendants had admitted at the removal stage what they did later in the litigation – that Shum always had ownership rights in the patents under state law (as affirmed in the POL) and he could not redress any injury through a victory on any federal correction of inventorship claims – this case never could have been removed. *Id.*

The Federal Circuit in *Larson, supra*, 569 F.3d 1319, carefully analyzed the propriety of federal jurisdiction over plaintiff's state court complaint under this Court's controlling Article III precedent. It held that, where a state court complaint, like Shum's here, contained a federal correction of inventorship question, but the plaintiff will not recover a "direct financial reward" from such federal claims and any award is "contingent" upon succeeding on his state law claims to void the effects of fraudulent assignments, the plaintiff lacks standing under Article III to pursue that inventorship claim in federal court and the case must be remanded to state court. *Id.* at 1326-27 (standing is "the threshold question in every federal case"); citing *Warth v. Seldin*, 442 U.S. 490, 498 (1975). *Larson* distinguished *Chou v. University of Chicago*, 254 F.3d 1347 (Fed Cir. 2001), where the plaintiff had the benefit of a preexisting royalty agreement and fee sharing agreement in a new start up company which provided "an automatic path to direct financial reward" (*Larson, supra*, 569 F.3d at 1326-27) following success on the inventorship claims. Shum, like *Larson*, and unlike *Chou*, needed to prevail on his state law claims in order to obtain a financial reward. It is not important for constitutional standing if a plaintiff affirmatively assigns his patent rights through fraud, like *Larson*, or if patent rights were "assigned away" by defendants without his knowledge, like Shum. In either case, the plaintiff's success in his correction of inventorship claims does not result in a "concrete financial" reward. *Larson, supra*, 569 F.3d at 1326. Therefore, Shum, like *Larson*, has always lacked Article III standing on his patent inventorship claims and his complaint never should have been removed from state court.

The Federal Circuit here never analyzed how it could square its conclusion that Shum could have Article III standing with its merits and costs opinions where it decided that Shum's successful inventorship verdicts could not provide him with any "benefit." The Federal Circuit never explained how defendants could contend that Shum's inventorship verdicts were so absolutely meaningless when they were required to demonstrate that plaintiff suffered an injury-in-fact, causally linked to the alleged unlawful conduct, which is likely to be redressed by a favorable decision of the court. *Lujan, supra*, 504 U.S. at 560. Here, defendants, who after years of litigation finally admitted that Shum always had rights in the patents at issue but contend their false designations of patent inventorship could not possibly have damaged him, effectively conceded that there was no actual federal "case" or "controversy" related to any federal inventorship claim. The case is, according to defendants, only about whether the POL actually "released" defendants from their future misappropriation of Shum's rights under California law. Yet, the federal district and appellate courts, at defendants' persistence, continued to adjudicate Shum's state law claims that he had originally filed in state court.

Indeed, defendants' belated concessions in this litigation that Shum has always had co-ownership rights under state law, despite their contrary and fraudulent assignments, cannot mean that defendants have magically conferred federal Article III standing on Shum. A party does not have a sufficient economic interest to confer Article III standing if he needs "a judicial intervention to change the [ownership] situation." *Larson, supra* 569 F.3d at 1327, quoting *Jim Arnold Corp. v. Hydrotech*

Systems, Inc., 109 F.3d 1567, 1572 (Fed. Cir. 1997) (an assignor lacked standing because it had not succeeded in rescinding or canceling its assignment in state court at the time it filed its complaint in federal court); *see also Lujan, supra*, 504 U.S. at 570 n. 5 (“Article III standing, like other bases of jurisdiction, generally must be present at the inception of the lawsuit.”) According to the district court and the Federal Circuit, inventorship simply did not matter – especially to Shum’s claims of monetary injury. Therefore, pursuant to U.S. Constitution, Article III, precedent of the Federal Circuit and this Court, this case must be adjudicated in state, not federal, court.

This Court must examine issues of standing whenever doubts as to federal jurisdiction arise. *Lujan, supra*, 504 U.S. at 560-61. Before the merits appeal began, Shum objected to subject matter jurisdiction, including filing a separate motion to dismiss at the outset of briefing, based upon *Larson*, a decision published by the Federal Circuit after the notices of appeal were filed. As discussed herein, the Federal Circuit’s decision that Article III standing and jurisdiction were appropriate does not address the issues raised by *Larson*, and contradicts the main holdings of its own opinions – that Shum could not possibly gain anything from his verdict on his federal correction of inventorship claims.

Remarkably, defendants have conceded that the entire basis for their removal of this case from state to federal court – the purported necessity of determining federal inventorship to establish plaintiff’s rights in the patents at issue and therefore his ability to recover under his state law claims – was a sham. Undeniably, defendants, especially Verdiell, always knew the patents

were invented at Radiance – just as Shum alleged in his state court complaint – and that Shum always had co-ownership interests in the patents. Controlling authority of this Court further instructs that subject matter jurisdiction therefore has also been lacking because all of Shum’s original state law claims were based, in part, on contractual ownership, not exclusively patent, rights. *Christianson, supra*, 486 U.S. at 808 (to justify removal, federal patent law must create the cause of action or the plaintiff’s right to relief must necessarily depend on resolution of a substantial question of federal patent law); *Holmes Group, Inc. v. Vornado Air Circulatory Systems, Inc.*, 535 U.S. 826 (2002) (“well pleaded complaint” rule prevents federal jurisdiction arising from defendants’ responsive pleadings and therefore “allows plaintiff to eschew claim based on federal law and have his claims heard in state court”); accord *HIF Bio, Inc. v. Yung Shim Pharmaceuticals Industrial Co., Inc.*, 600 F.3d 1347, 1352-57 (Fed. Cir. 2010) (Federal Circuit applying *Christianson* to remand a state court complaint in part invoking federal patent inventorship issues). Federal jurisdiction cannot be based on a defense, let alone a verifiably bogus defense, to the claims of a state court complaint. *Holmes Group, supra*, 535 U.S. at 840; *Syms, Inc., v. IBI Security Service, Inc.*, 586 F.Supp. 53 (S.D.N.Y. 1984) (removal was clearly improper since defendant knew there was no diversity of citizenship).² Remand in this case is required under 28

2. District courts routinely follow *Christianson* and *Holmes* and order remand, as they must, when presented with such complaints. *Coker v. Purdue Pharma Co.*, 314 F.Supp.2d 777, 782-94 (W.D. Tenn. 2004) (no federal jurisdiction found, even where plaintiff had alleged fraud on the PTO, because complaint demonstrated an alternative theory by which plaintiff could succeed in proving his state law claims); *Lighting Science Group*

U.S.C. § 1447(c) (“If at any time before final judgment it appears that the district court lacks subject matter jurisdiction, the case shall be remanded.”)³

Thus, the “mere presence of a federal issue in a state cause of action does not automatically confer federal jurisdiction,” *Merrell Dow Pharm., Inc. v. Thompson*, 478 U.S. 804, 813 (1986), and, indeed, a federal issue “lurking in the background” is insufficient. *Gully v. First Nat’l Bank*, 299 U.S. 109, 112-13 (1936). In order to “arise under” a federal law, a “genuine and substantial controversy” must exist regarding the meaning or interpretation of federal law. Even the Federal Circuit’s own analysis of Shum’s non-patent theories makes clear that questions of patent law are not essential to Shum’s state law based claims to rights in the patents-at-issue. Pet. App. 16a-30a. Defendants’ latest obfuscating tactic

Corp. v. Koninklijke Philips Electronics N.V., 624 F. Supp. 2d 1174, 1181 (E.D. Cal. 2008) (remand ordered where substantial federal question not intrinsic to any of plaintiffs’ claims relating to misrepresentations of patent rights, because plaintiffs could succeed by showing defendants acted unfairly under state law, not unlawfully under patent law); *Altavion v. Konica-Minolta Sys. Lab., Inc.*, No. C-07-06358-MHP, 2008 WL 2020593 at *4-*5 (N.D. Cal. May 8, 2008) (plaintiff’s complaint must be remanded because, although one theory of the claim would have required a determination of the inventor of a patented technology, there were alternate, non-federal theories pled that would allow plaintiff to succeed in its fraud claim).

3. Defendants should also be ordered to pay Shum’s attorneys fees and costs associated with their improper removal whether they are found in bad faith, or not. *Sudden v. Blue Circle*, 116 F.3d 1351 (10th Cir. 1997) (test for determining reimbursement of fees is only the propriety of the removal).

– admitting Shum’s continuing interest in the LightLogic patents under the Radiance POL (or more appropriately, under state law as confirmed by the POL), but denying him any financial reward for his ownership based only on their interpretation of the POL as a “release” – plainly demonstrates that state law, not federal law, issues are dispositive here.

Defendants have manipulated the federal courts. First, by saying that inventorship issues were a “necessary element” of Shum’s state claims to obtain removal and then by saying they did not matter – after Shum proved his claims – because state law contract (the POL) questions were outcome determinative. Defendants have not, and cannot, reconcile their admission that Shum received no “benefit” from his inventorship victories with their need to carry the burden and prove a redressable injury to satisfy Article III. *See e.g., Lewis, supra*, 494 U.S. at 478 (the parties must continue to have a “personal stake in the outcome” for Article III standing to attach) (internal citation omitted).

This decision extends the reach of the federal courts to state law disputes that are surely beyond its jurisdiction, and the Article III issues it raises must be reviewed. Moreover, it will create confusion and a split within the Federal Circuit when considering state law complaints for misappropriation of patent rights. Further, this case is not unusual. Over the last few years, there have been several cases regarding the application of federal jurisdiction, including Article III standing doctrine, to state court fraud cases involving inventorship disputes. *See Chou, supra*, 254 F.3d 1347; *Larson, supra*, 569 F.3d 1319; *Fenn v. Yale Univ.*, 238 F. Supp. 2d 615 (D. Conn. 2003).

This case allowed to stand will surely create the wrong incentives in our competitive technological marketplace. As it stands, this case produces the illogical and confusing result that a plaintiff like Shum, whose patent ownership rights are “assigned away” by defendants through concealed fraudulent claims to ownership of patents in the PTO, cannot proceed in state court with his state law claims, but a plaintiff like Larson, whose patent ownership rights were allegedly “assigned away” through other fraud may proceed in state court on similar state law claims. In both cases, the validity of the assignment must be decided before any financial benefit and, therefore, Article III standing can be found by the plaintiff.

The Federal Circuit majority stated that this case “[m]ostly ... is about claims arising under California law.” Pet. App. 2a. Indeed, this is correct. The state court could have – and should have – decided each of the state law claims at issue, including whether Shum’s common law and contractual rights in the Radiance inventions were damaged by defendants’ assignments that claimed the “sole, exclusive and entire” rights in these patents. *Jim Arnold Corp., supra*, 109 F.3d at 1572 (issues of patent ownership, including the effect of assignments, are issues of state, not federal, law). Therefore, under controlling Supreme Court and other precedent, federal jurisdiction has been lacking and remand is required.

II. The Federal Circuit’s Merits Decision Conflicts With Controlling Authorities Of This Court And Other Federal Circuit Court Of Appeals Decisions Regarding The Interpretation And Effect Of Fraudulent Assignments Which Will Especially Affect The Ability Of Individual Intellectual Property Owners And Small Business Entities To Protect Their Rights.

Putting aside the jurisdictional issue, the Federal Circuit majority opinion on the merits can deal a devastating blow to the rights of patent co-owners, especially individual inventors and small business owners without financial resources to fight highly financed fraud, who have been or will be unlawfully deprived of their property interests in patents that may benefit society as a whole. This decision stands for a new rule: patent assignments which fraudulently claim “*sole and exclusive*” ownership, and *transfer the “entire rights”* in patents to a corporation, can be, and may be, ignored by the courts without any legal consequence to the wrongdoer. That rule conflicts with two well-established bedrock principles of this and other courts.

First, a wrongdoer cannot simply give back fraudulently assigned rights; an affected plaintiff has the option, as Shum did, to affirm the assignments and sue for damages. The fraudulent assignment of the “entire rights” to the patents was successful – it passed legal title to LightLogic, and subsequently to Intel. *Littlefield v. Perry*, 88 U.S. 205, 219 (1875) (a transfer of the “entire interest” in a patent is a complete transfer of title). Unlike a license agreement, where title does not change hands, it is well-established as a matter of law that patent “[a]ssignments pass title to

the patentee's rights, with all the accompanying rights of ownership, from the patentee to the assignee." *Jim Arnold Corp, supra*, 109 F.3d at 1577; *citing* Chisum, Patents, § 21.03[2][a]-[b], at 21-154 to 21-155 (1996); *Mars, Inc. v. Coin Acceptors, Inc.*, 527 F.3d 1359, 1370 (Fed. Cir. 2008). Here, as Judge Newman recited in her dissent, each patent assignment declared that Verdiell was "**the sole and lawful owner of the entire right, title, and interest in and to said inventions.**" Pet. App. 39a; emphasis added. Judge Newman further recited that "LightLogic in turn described itself as the "sole and exclusive owner" of these patents, and duly assigned this purported entire and exclusive right to Intel." *Id.* The Panel's majority opinion disregards the effect of fraudulent patent assignments on legal title to patents, and the plaintiff's right to elect a remedy for that fraud, by concluding that Shum always maintained his co-ownership rights to the patents. *Papazian v. Am. Steel & Wire Co. of N.J.*, 155 F.Supp. 111, 119 (D. Oh. 1957) (holding that it is "Hornbook law" that fraudulent patent assignments are not void, but merely voidable; the defrauded party has the option of electing to "disaffirm the transaction and sue in equity to set aside the transfer, or he may affirm the transfer and institute a common law action for damages for fraud"); *see also* *Wang Lab v. Mitsubishi Elec. Am.*, 103 F.3d 1571, 1581 (Fed. Cir. 1997) (if a patentee has assigned a right and received consideration, he or she cannot derogate from the right grants).⁴

4. Verdiell and LightLogic have refuted this logical and authoritative rule by arguing that Shum does not allege he was "induced" to "part with his property," and thus has no right to elect his remedy. But this is not true: documents that facially vest legal title in another party, like defendants' assignments here, if not forged, are voidable, not void "ab initio." *Heidelberg Harris*,

The election of remedies rule makes sense in many cases, like this one, where Shum’s rights were of great value when taken (during the telecom explosion), but are now, after years of litigation, valueless. It is good public policy that fraudulent assignors are not permitted to benefit from their fraud by choosing the remedy *they* prefer, perhaps setting aside the transfer. If invalidating the assignments were the plaintiff’s only remedy, defendants, as they did here, could escape liability by protracting litigation so that, years later, after the patents are much less valuable, they simply state that they are “giving the rights back.” That is bad law and cannot stand. Therefore, the majority opinion will cause confusion concerning the effect of fraudulent patent assignments, which under precedent, transfer legal title to the patents, subject to the plaintiff’s election to invalidate the assignments or sue for damages.

Second, fraudulent assignors may not simply steal and sell someone’s intellectual property, denying the innocent party their lawful rights and reaping substantial rewards for their bad conduct, and then, when caught, simply

Inc. v. Loebach, 145 F.3d 1454, 1457 (Fed.Cir.1998); *Arachnid, Inc. v. Merit Indus., Inc.*, 939 F.2d 1574, 1578 (Fed.Cir.1991); *Digeo, Inc. v. Audible, Inc.*, F.Supp.2d 2006 WL 2473461, *4 (W.D.Wash. 2006) (holding that the rulings in *Heidelberg Harris* and *Arachnid* – that documents that facially vested legal title to another were voidable, not void – do not apply in the limited instance of forged assignments). Indeed, it is frivolous for defendants to contend they did not obtain and transfer the “sole and exclusive” rights – including Shum’s rights unlawfully – in the patents when they represented in security interests filed in the PTO that they had the right to sue for patent infringement. *Abraxis Bioscience, Inc. v. Navinta, LLC*, 625 F.3d 1359 (Fed. Cir. 2010) (to have standing for patent infringement one must hold enforceable title at the inception of the lawsuit).

disavow the truth and claim they never took those rights at all. California law has plainly condemned defendants' conduct for decades. *ViChip Corp. v. Lee*, 438 F.Supp.2d 1087, 1096 (N.D. Cal. 2006) (executive was liable in tort for claiming title through assignments of intellectual property); *Haserot v. Keller*, 67 Cal.App. 659, 668 (1924) (co-owner of a patent who improperly grants "exclusive rights" must account to other co-owner for profits accrued by his wrongful exercise of the other's ownership rights). Defendants have not offered any coherent response to this unquestionably correct and applicable line of authorities. Instead, as if in Wonderland, they boldly argue it was "legally impossible" for them to transfer rights they did not have. But, just as it is "legally impossible" to truly become another person, identity theft is real. Similarly, intellectual property theft is not "legally impossible," it is just illegal. *Id.*

Indeed the legal position of Intel here is striking: Intel contends, and has succeeded in convincing the federal courts so far, that there should be no legal consequences, as a matter of law, for making knowingly false misstatements of patent ownership rights in documents publicly filed in the U.S. Patent and Trademark Office. This would completely subvert the "duty of candor" that every patent holder unquestionably owes to the PTO. 37 C.F.R. § 1.56(a) ("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[.]"); see *Perseptive Biosystems, Inc. v. Pharmacia Biotech, Inc.*, 225 F.3d 1315, 1321 (Fed. Cir. 2002) ("As a critical requirement for obtaining a patent, inventorship is material."); citing 35 U.S.C.

§ 102(f); 37 C.F.R. § 1.56(a) (2007). “Materiality” includes the duty to name all inventors or to disclose inventorship issues. MPEP § 2001.04. Also, it would obviate the primary purposes of the PTO’s filing system – to accurately notify the potential purchasers and the public of the true owner of each patent. *CMS Indus., Inc., v. L. P. S. Int’l, Ltd.*, 643 F.2d 289, 294-95 (5th Cir. 1981); *Newcom Holdings Pty. Ltd. v. Imbros Corp.*, 369 F.Supp.2d 700, 712 (E.D. VA. 2005) (parties were “legally obligated to correct their submissions to the PTO and state [they] possessed only a partial, not a whole, interest in the application”). Intel, one of the wealthiest companies in the world, has repeatedly spoken out publicly and to the U.S. government in Congressional hearings about the need for strong worldwide protection of intellectual property owners’ rights. *See* Testimony of David Simon, Chief Patent Counsel, Intel, before the House Judiciary Subcommittee on Intellectual Property, Competition and the Internet Hearing: “Crossing the Finish Line on Patent Reform –What Can and Should Be Done.” (Feb 11, 2011) (because Intel invested “over \$7.3 billion in research and development of our latest technologies” in 2010 alone and received “over 1600 US patents” it believes “[s]trong IP rights that are consistently enforced drive private sector innovation and investment, and bring clarity and certainty to technology transfer transactions”). Yet, ironically, now Intel espouses that it is not unlawful to file and maintain false patent assignments in the PTO, concealing from the public the fact that an individual person – a single small inventor – has co-ownership rights in certain valuable optoelectronic patents. Intel has had the audacity to brag that defendants’ “fraud” has still yet to be proven because the federal courts granted JMOL on Shum’s state law claims. But defendants have admitted that for years they

knew Shum had co-ownership interests in the valuable patents – and yet they continued to file and maintain their false “sole and exclusive rights” patent assignments in the PTO.

This decision, holding that patent co-owners maintain full co-ownership rights and are not damaged as a matter of law when one of them files patent assignments which fraudulently claim and transfer the other’s entire interest for substantial compensation, is not only illogical and contrary to precedent, but it may wreak havoc, and is especially damaging to individual inventors and small business entities at a critical time in our economy. The filing and recordation of accurate patent assignments are, everyone concurs, a vitally important procedure to ensure the property rights of intellectual property owners. The accuracy of these assignments is especially important to individuals and small business entities who cannot afford to spend years and gross sums of money on legal fees determining the implications and effect of intentionally false claims to intellectual property rights. *See e.g.*, L. Fletcher, *Equal Treatment Under Patent Law: A Proposed Exception to the On-Sale Bar*, 13 Tex. Intell. Prop. L.J. 209, 229 (2005) (describing that individuals and small companies have significant difficulties protecting patents because of the exorbitant cost of patent litigation). The decision in this case has even broader implications and could be used to thwart the rights of all individual inventors and small businessmen who cannot match the financial or institutional advantages of multinational companies like Intel. *See e.g.*, <http://www.cafc.uscourts.gov/the-court/advisory-council.html> (Intel’s in-house counsel has been a member of the Federal Circuit Advisory Council while this case was pending and decided).

Finally, the Federal Circuit, in deciding Intel as a matter of a law only cared about “the right to use” the technology, not the exclusive rights clearly conveyed in the patent assignments – by relying largely on testimony of defendants’ witnesses who made millions on the transaction – violated a fundamental tenet of civil procedure. *United States v. U.S. Gypsum Co.*, 333 U.S. 364, 396 (1948) (little weight should be given to potentially biased testimony during litigation which conflicts with contemporaneous documentary evidence). The Court has handed down a fine roadmap of how to misappropriate intellectual property rights and get away with it.

If the current Panel’s majority opinion stands, it will result in confusion about the importance and effect of patent assignments, encourage and excuse deliberately false filings in the PTO that effectively take away a party’s patent ownership rights, and undermine the Seventh Amendment right to a jury trial by allowing courts to disregard critical evidence on JMOL and summary judgment.

III. If Federal Subject Matter Jurisdiction Is Found, The Award Of Costs To Defendants, The Losing Party On Shum’s Federal Claim For Correction Of Inventorship Claims, Rather Than Shum, The Winning Party, Contradicts Controlling Precedent Of The Supreme Court And This Court, And Is A Dramatic Departure From Existing Law In The Federal And Other Circuits, Which Will Lead To Confusion And A Chilling Effect On Individual And Small Patent Inventors.

The Federal Circuit majority opinion on costs affirmed a substantial award to defendants, the losing party of

Shum’s federal inventorship claims, because the judgment of joint inventorship and the ensuing co-ownership “did not give Shum any rights in the patented technology that he did not already have under the POL.” Pet. App. 58a. As discussed above, this conclusion fatally undermines federal jurisdiction. And, as the dissent recognizes, citing to the fraudulent patent assignments, this conclusion “is plainly incorrect. The Trial record is replete with Verdiell’s assertions of exclusivity.” Pet. App. 65a.

This decision is remarkable because it holds that a party who succeeds in obtaining unanimous verdicts on the key inventorship verdicts – never even challenged on appeal – which demonstrated defendants’ outright fraud in the PTO, owes the losing party hundreds of thousands of dollars in costs. The award of costs here is “so flawed” that “its affirmation by my colleagues raises important concerns of justice and fairness, as well as conformity with rule and precedent.” Pet. App. 62a.

Indeed, this costs award contradicts controlling precedent of the Supreme Court and the Federal Circuit, cited by, but not correctly applied by, the Majority. *Farrar*; *supra*, 506 U.S. at 111-12 (“a plaintiff ‘prevails’ when actual relief on the merits of his claim materially alters the legal relationship between the parties by modifying the defendants’ behavior in a way that directly benefits the plaintiff”); *Manildra Milling Corp. v. Ogilvie Mills, Inc.*, 76 F.3d 1178, 1183 (Fed. Cir. 1996) (the court applied *Farrar* to taxation of costs in patent litigation in which plaintiff did not obtain monetary damages, but the court held that the plaintiff was the prevailing party because a “judicial declaration that one is free from another’s right to exclude alters the legal relationship between the parties”). Therefore, it is fundamental that a party

who fully succeeds on a federal Article III action – which requires demonstrating through trial the triad of “injury in fact, causation and redressability” – must have “directly benefited” from that victory. This is not a case where the plaintiff prevailed on all but his damages claims under a federal claim. Shum prevailed on every element of his correction of inventorship claim.

To counsel’s knowledge, this case is the first to decide that a party can prevail on the federal claim that gave rise to jurisdiction and not be deemed the prevailing party for purposes of a costs award under Rule 54. This Court has determined that even a plaintiff who obtains merely nominal damages is considered “prevailing” and may recover costs. *Farrar, supra*, 506 U.S. at 103. Indeed, the dissent recognized that, if “Shum’s victory is viewed as no better than nominal, the proper result is ‘no costs’ not an award to the losing party.” Pet. App. 67; *citing Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 670 (Fed. Cir. 2000). But the majority plainly considers Shum’s inventorship victory as less than “nominal.” And of course, the majority never explained how a plaintiff could have such a meaningless victory and still demonstrate the “concrete injury” required for federal Article III jurisdiction.⁵

This Federal Circuit’s affirmation of the costs award, rejecting the decision by the district court that the parties were both “prevailing parties” and deciding that defendants were the only “prevailing party” under Rule

5. Similarly, the Panel’s apportionment of costs – including requiring Shum to pay for half the cost of an unconstitutional bench trial on that inventorship – “has no support in precedent or in logic, and in this case is unfair.” Pet. App. 67a.

54 – when defendants lost on the inventorship claims which they earlier argued were a necessary component of Shum’s state law claims and when defendants themselves never formerly sought sole “prevailing party” status – reveals the extent to which the Federal Circuit, for some unknown reason, overreached to punish an individual inventor who successfully proved that defendants with unlimited resources falsely claimed sole and exclusive rights to patents that he co-owned, including filing and maintaining false “exclusive rights” patent assignments in the PTO for over a decade.

It is grievously unjust to tax Mr. Shum with the net costs of Intel’s unsuccessful but more expensive defense. This approach cannot be reconciled with any theory of taxable costs.

Pet. App. 68a.

Finally, and most importantly, if the Panel’s federal subject matter jurisdiction analysis is not reversed, it will bring confusion and uncertainty to the imposition of costs in patent litigation. Patent litigation costs are often exorbitant and especially crippling for individuals and small companies. *See Does David Need a New Sling? Small Entities Face A Costly Barrier to Patent Protection*, 4 *J. Marshall Rev. Intell. Prop. L.* 184 (2004), 195-96 (discussing disadvantages faced by individual inventors and small business under current patent law). This decision supports the proposition that even if plaintiffs prevail on important issues in a case affecting their patent rights, they may be forced to pay costs to the losing party. Obviously then, this decision will inhibit small businesses and individual inventors like Shum who do not have the

resources of the large corporate defendants from filing suit to protect and assert their patent rights.

This case involves questions that are of vital importance with regard to all intellectual property and its owners. If fraudulent patent assignments are disregarded by the courts without any consequences to the unscrupulous wrongdoers, then intellectual property rights can and will be readily misappropriated. Defendants in such cases will simply argue that, despite their fraud, the plaintiff technically always “had rights” in the patents. Defendants will be encouraged to delay and obfuscate in order to dilute the ultimate value of plaintiffs’ rights. The issues addressed in these opinions are especially important to individual inventors, engineers, and small business entities who cannot afford to fight such fraud due to the high costs of litigation. Following this case, the “little guy” could be hit especially hard: district courts would have authority to require inventor or patent owner plaintiffs to pay the exorbitant litigation costs of corporate defendants – even if plaintiffs prevail on claims.

CONCLUSION

The petition for a writ of certiorari should be granted.

Respectfully submitted,

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May 25, 2011

APPENDIX

**APPENDIX A — DECISION OF THE UNITED
STATES COURT OF APPEALS FOR THE
FEDERAL CIRCUIT DATED DECEMBER 22, 2010**

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

FRANK T. SHUM,

Plaintiff-Appellant,

v.

INTEL CORPORATION, LIGHTLOGIC, INC.,
AND JEAN-MARC VERDIELL,

Defendants-Cross Appellants.

2009-1385, -1419

Appeal from the United States District Court for the
Northern District of California in case no. 02-CV-3262,
Senior Judge D. Lowell Jensen.

Decided: December 22, 2010

PAUL F. KIRSCH, Shopoff & Cavallo LLP, of San
Francisco, California, argued for plaintiff-appellant. Of
counsel on the brief was ROBERT A. MCFARLANE, Townsend
and Townsend and Crew LLP, of San Francisco, California.

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WILLIAM F. LEE, Wilmer Cutler Pickering Hale and Dorr LLP, of Boston, Massachusetts, argued for defendants-appellees. With him on the brief were RICHARD W. O'NEILL, MARK C. FLEMING; SETH P. WAXMAN, BRIAN M. BOYNTON, MARY K. GARDNER, and GREGORY H. LANTIER of Washington, DC. Of counsel on the brief was STEPHEN E. TAYLOR, Taylor & Company Law Offices, LLP of San Francisco, California.

Before NEWMAN, LOURIE, and PROST, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* PROST.
Dissenting opinion filed by *Circuit Judge* NEWMAN.

PROST, *Circuit Judge*.

In part, this case is about inventorship. Mostly, however, this case is about various claims arising under California law. While the theories as to each state law claim differ slightly, all are essentially grounded in fraud. The ones at issue on appeal include breach of fiduciary duty, fraudulent concealment, unjust enrichment, breach of contract, and intentional misrepresentation. This appeal also challenges the district court's findings regarding the inventorship of certain claims for two of the patents-in-suit.

This case was filed by an optical engineer named Frank Shum ("Shum"). Shum's amended complaint sought correction of inventorship for seven patents that listed his former business partner, Jean-Marc Verdiell ("Verdiell"), as the sole inventor. Shum contended that he should be

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named as a co-inventor, if not the sole inventor, of these patents.

Shum's state law claims all stem from the sale of Verdiell's company LightLogic, Inc. ("LightLogic") to Intel Corporation ("Intel"). Before Verdiell formed and later sold LightLogic, Verdiell and Shum had been equal shareholders and co-officers of a company called Radiance Design, Inc. ("Radiance"). A mere nine months after its formation, however, Shum and Verdiell dissolved Radiance pursuant to a detailed Plan of Liquidation ("POL"). The POL gave them equal rights to exploit Radiance's intellectual property. While Shum shortly thereafter returned to a salaried position at an established company, Verdiell chose to form and continue his own company, LightLogic. Pursuant to his state law claims, Shum seeks to recover some of the \$409 million Intel paid for LightLogic.

Shum's claims were decided at various stages of the proceedings below. On remand from an earlier appeal to this court, the district court granted defendants' summary judgment on Shum's breach of fiduciary duty and fraudulent concealment claims. A jury subsequently heard Shum's claims for correction of inventorship, intentional misrepresentation, breach of contract, and unjust enrichment. The jury found that Shum was a co-inventor of some claims in five of the six patents still in dispute at trial.¹ More importantly for our purposes, the jury was unable to reach a verdict on any of the state law claims. It

1. Before the close of evidence, Shum withdrew his correction of inventorship claim as to U.S. Patent No. 6,252,726.

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also deadlocked on correction of inventorship for claim 5 of U.S. Patent No. 6,227,724 (“724 patent”) and claim 1 of U.S. Patent No. 6,585,427 (“427 patent”). The district court declared a mistrial on these claims. After trial, defendants Verdiell, Intel, and LightLogic renewed their motion for judgment as a matter of law (“JMOL”) on the unresolved state law and inventorship claims. The district court granted defendants’ motion, concluding that a reasonable jury would not have had a legally sufficient basis to find for Shum. Shum timely appealed.

On appeal, Shum argues that there are genuine issues of material fact entitling him to proceed to trial on his breach of fiduciary duty and fraudulent concealment claims. As for the claims on which the district court granted post-verdict JMOL, Shum argues that he presented sufficient evidence such that a reasonable jury could find for him, thus entitling him to a new trial. In support of his request for a new trial, Shum argues that various evidentiary and discovery rulings by the district court were erroneous.

We disagree and now affirm the district court’s judgment.² Under California law, Verdiell did not owe Shum a fiduciary duty; as for any fiduciary duty that Verdiell owed Radiance, their jointly owned and now-defunct corporation, Shum lacks standing to sue. Further, because Verdiell owed Shum no fiduciary duty and there is no evidence Verdiell

2. Because we conclude that Shum is not entitled to a new trial, we do not reach defendants’ conditional cross-appeal, which sought to retry the correction of inventorship claims in the event a new trial was granted as to any claim.

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knew or actively concealed material facts Shum did not know or could not have reasonably discover, Verdiell is not liable for fraudulent concealment.

Shum's claim for intentional misrepresentation similarly fails because there is no evidence that defendants made a false statement or that Shum suffered any actual monetary loss as a result of the alleged misrepresentation. As for Shum's breach of contract claim, there is again a dearth of evidence that Shum was harmed as a result of defendants' alleged breach. The unjust enrichment claim suffers a similar fate: no evidence supports Shum's assertion that defendants' alleged wrongful acts caused them to obtain a benefit at Shum's expense. Finally, we agree with the district court that the evidence Shum offered at trial was not sufficient for a reasonable jury to find that Shum made an inventive contribution to claim 5 of the '724 patent or claim 1 of the '427 patent.

BACKGROUND

The facts below resulted in two separate appeals to this court, both of which arose from the same trial and post-trial proceedings. We combined the appeals for the purpose of oral argument, but address the discrete issues each raises in separate opinions. Here, we address the merits. Shum separately appealed the district court's award of costs pursuant to Federal Rule of Civil Procedure 54(d)(1). That appeal is the subject of a companion opinion, *Shum v. Intel Corp.*, No. 2010-1109.

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Shum's claims for inventorship and violations of state law are intimately bound up in his brief business venture with Verdiell, as well as Verdiell's business activities after the two parted company. That history is set forth below.

Shum and Verdiell met while working at Spectra Diode Laboratories ("SDL"). Both are engineers in the optoelectronics field. In 1996, Shum left SDL and formed his own company. Verdiell continued to work at SDL, though he helped Shum prepare grant proposals for various optoelectronic packaging products. In March 1997, Verdiell resigned from SDL. Shortly thereafter, in April 1997, Shum and Verdiell incorporated Radiance as equal shareholders and co-officers: Verdiell was President and Treasurer; Shum, Vice President and Secretary. Shum and Verdiell also executed agreements assigning all of their rights in any inventions to Radiance.

The day after Radiance was incorporated, a patent agent named Marek Alboszta ("Alboszta") filed U.S. Patent Application No. 08/838,022 on behalf of Radiance ("022 patent application" or "Radiance patent application"). It covered optoelectronic assemblies and methods for making them. Although Verdiell undisputedly made inventive contributions to the application, Shum was named as the sole inventor. At trial, the evidence showed that Shum and Verdiell decided to omit Verdiell's name from the application because some of the matter was conceived by Verdiell while he was still working for SDL and they wished to avoid disputes regarding ownership of the invention.

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While the Radiance patent application was pending, Verdiell told patent agent Alboszta that he, not just Shum, was an inventor of the claimed subject matter. Based on this information, Alboszta concluded that the Radiance patent application was invalid and had to be withdrawn. Both Alboszta and Verdiell subsequently told Shum that the application would have to be withdrawn. Shum agreed; the Radiance patent application was withdrawn in November 1997.

By the time the Radiance patent application had been withdrawn, the relationship between Shum and Verdiell had deteriorated. Both had begun to separately prepare business plans and seek financing for new companies based on Radiance's technology. Both also hired attorneys. After buy out talks for Radiance broke down, negotiations turned to dissolving Radiance and drafting a satisfactory POL. The final version of the POL was agreed to and executed on January 5, 1998. Pursuant to the POL, Shum and Verdiell

acknowledge[d] and agree[d] that, after approval of this Plan, each of them shall be entitled, without any liability or duty to account to the Corporation or to the other, to pursue any and all such other business activities as they shall desire, even if such activities are in competition with the business of the Corporation [Radiance] and even if they take, or attempt to take, a business opportunity that the Corporation could itself have pursued.

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The day after the POL took effect and Radiance was formally dissolved, patent agent Alboszta filed a new patent application on Verdiell's behalf. This first patent application related to the same subject matter as the withdrawn Radiance patent application, with Verdiell even using the Radiance patent application as a starting point and then editing it to remove portions he viewed as Shum's contribution. The application Alboszta filed in January 1998 named Verdiell as the sole inventor. Verdiell subsequently assigned his rights in the application to his new company, LightLogic. Verdiell formed LightLogic a day before Radiance withdrew its patent application. At no time before or after dissolution of Radiance did Verdiell tell Shum about his plans to form LightLogic or to file a new patent application covering the same subject matter as the Radiance application. The application filed in Verdiell's name issued in November 1999 as U.S. Patent No. 5,977,567 ("567 patent").

From the time Verdiell filed his first patent application in January 1998 until Intel acquired LightLogic in 2001, LightLogic grew from a single-person corporation operating out of a small laboratory in Verdiell's bedroom to a company with approximately seventy-five employees that had attracted tens of millions of dollars in financing from venture capitalists and companies like Cisco. These investors in LightLogic were given copies of the Radiance POL. Moreover, closing documents for each round of financing stated that "[p]ursuant to the Radiance Design, Inc. Plan of Liquidation [POL], Frank Shum and Jean-Marc Verdiell have equal rights to independently exploit the intellectual property developed by Radiance Design, Inc."

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In addition to expanding, LightLogic also began to shift its focus from optical modules to a fully-integrated optoelectronic telecommunications subsystem called a transponder. Transponders allow two-way communication between computers or other telecommunication devices and an optical fiber network. They work by combining multiple streams of electronic data, such as telephone calls, into a single, high-speed electronic data stream which is then converted into light and sent over a fiber-optic network. In addition to sending information, transponders also receive an incoming stream of optical data. The incoming stream is converted into an electronic data stream, which is further disaggregated, or “demultiplexed,” into multiple separate data streams. One of the challenges of designing and building transponders is preserving signal quality at high data transmission speeds.

LightLogic successfully built and demonstrated a 10Gb/sec transponder at a trade show in March 2000. As the only company to have a working prototype at that speed, LightLogic was able to obtain more financing. By September 2000, LightLogic had begun shipping production models of its transponder, with demand soon exceeding supply.

By that time, LightLogic had also filed six additional patent applications that would issue as U.S. Patent Nos. 6,376,268 (“268 patent”); 6,207,950 (“950 patent”); 6,586,726 (“6726 patent”); 6,227,724 (“724 patent”); 6,585,427 (“427 patent”); and 6,252,726 (“2726 patent”) (collectively, along with the ’567 patent, known as the “LightLogic patents”). With the exception of the ’427

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patent, all of these patents named Verdiell as the sole inventor. The '427 patent named Verdiell and four co-inventors. Shum was not listed as an inventor on any of the patents.

LightLogic's patents covered roughly three different areas of optoelectronic technology, though all were directed to producing less expensive, high-speed optoelectronic modules suitable for automated manufacture. The first, known as "dual enclosure" technology, is the subject of the '2726 patent. The '2726 patent claims an optoelectronic package composed of two separate enclosures designed to cost-effectively regulate temperature in the packages. The second area is "directed bonded copper" or "step" technology, which sought to provide a material that could endure high temperatures without expanding, thus making a better optoelectronic package. The '567 and '268 patents relate to this area. Both disclose an optoelectronic package with a substrate made of an insulating ceramic material and a layer of bonded copper. The third area is "flexure" technology, which was meant to help the industry transition from the existing, labor-intensive process of aligning, attaching, and checking components by hand, to automated production. The remaining four patents, the '950, '724, '427 and '6726, relate to this area. All address how to align a laser diode and optical fiber during an automated assembly process and keep the components aligned during use.

In June 2001, Intel acquired LightLogic for \$409 million, with Verdiell personally receiving \$58.4 million. Pursuant to this stock-for-stock exchange, Intel acquired LightLogic's physical assets, personnel, and rights to its

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seven patents. During negotiations to acquire LightLogic, Intel received a copy of the Radiance POL. In its pre-acquisition disclosures to Intel, LightLogic stated that

Jean-Marc Verdiell and Frank Shum founded a company called Radiance Design, Inc. (“Radiance”). Pursuant to the Radiance Design, Inc. Plan of Liquidation [POL] . . . Frank Shum and Jean-Marc Verdiell were given equal rights to independently exploit the intellectual property developed by Radiance Design, Inc., including the rights to U.S. Patent No. 5,977,567. To the Company’s knowledge, Mr. Shum is not presently engaged in any business directly competitive with the Company and has not made any efforts to exploit or to permit others to exploit the rights under that patent.

While Verdiell was forming and fostering LightLogic, Shum also briefly attempted to pursue Radiance’s technology and business on his own. After Radiance’s dissolution, Shum formed a company called Luminance and attempted to obtain financing. These efforts were not successful. Less than six months later, Shum accepted a job at Ditech Communications and ceased work on Luminance. It is undisputed that nothing Verdiell or LightLogic did between 1998 and 2000 had any effect on Shum’s decision to not pursue Radiance’s technology or business. Indeed, until Shum learned of LightLogic’s acquisition by Intel in 2001, Shum did not even know what Verdiell had been doing since Radiance’s dissolution.

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In 2001, Shum filed the original complaint in this action in California state court. The complaint alleged numerous violations of state law, all of which were essentially grounded in fraud surrounding the dissolution of Radiance and much later sale of LightLogic to Intel. After the case was removed to federal court, Shum amended his complaint, adding claims for correction of inventorship with respect to all seven of the LightLogic patents.

The procedural history preceding this latest appeal is long and tortuous; only the relevant parts are set out below. After the case was removed to federal court, the district court dismissed Shum's claim for unjust enrichment and granted defendants' motion to bifurcate the inventorship and state law claims. A bench trial on the inventorship claims followed, after which the district court found that Shum had not shown by clear and convincing evidence that he was an inventor of any claims in the disputed LightLogic patents. The district court then granted defendants' motion for summary judgment on Shum's remaining state law claims. Shum filed his first appeal with this court. We vacated the judgment, reversed the dismissal of the unjust enrichment claim, and remanded for further proceedings. *Shum v. Intel Corp.*, 499 F.3d 1272, 1275 (Fed. Cir. 2007). We held that on remand Shum was entitled to a jury trial on his state law claims prior to any determination of his inventorship claims because his inventorship claims and state law claims shared common factual issues. We also reinstated Shum's unjust enrichment claim because it was not duplicative or dependent on his fraudulent concealment claim. *Id.* at 1279-80.

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Before the case was tried to a jury on remand, defendants again moved for summary judgment on Shum's inventorship claims and some of his state law claims. The district court granted defendants' motion with respect to Shum's breach of fiduciary and fraudulent concealment claims. At trial, Shum withdrew his correction of inventorship claims with respect to the '2726 patent before the close of evidence and limited his claims with respect to the remaining six patents to co-inventorship, thus abandoning his prior, alternative claim for sole inventorship. The jury heard testimony and saw extensive documentary evidence regarding these remaining inventorship claims and the state law claims for intentional misrepresentation, breach of contract, and unjust enrichment.

The jury found that Shum was the co-inventor of some claims in five of the six contested patents.³ For the '427 patent, the jury found that Shum was not the co-inventor of all claims except claim 1, as to which it deadlocked. The jury also failed to reach a verdict as to claim 5 of the '724 patent and Shum's state law claims for intentional misrepresentation, breach of contract, and unjust enrichment.

The district court declared a mistrial for the claims on

3. For the '567 patent, the jury found Shum was the co-inventor of claims 1, 6, 7, 8, 11, and 18. For the '268 patent, the jury found Shum was the co-inventor of claims 1, 4, 12, 13, and 26. For the '950 patent, Shum was found to be the co-inventor of claims 1, 2, 14, and 29. For the '726 patent, Shum was found to be the co-inventor of claims 1, 2, 5, and 8. For the '724 patent, the jury found Shum was the co-inventor of claims 1, 7, 14, and 16.

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which the jury failed to reach a verdict. After declaring a mistrial, the district court entertained defendants' motion for judgment as a matter of law. It then entered judgment for Shum on his co-inventorship claims for the five patents on which the jury reached a verdict. On the remaining claims, the court entered judgment for defendants. In support of its grant of post-verdict JMOL, the district court concluded that a reasonable jury could not find for Shum on these state law claims or the remaining co-inventorship claims as to the '427 and '724 patents.

Shum now appeals. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).⁴

ANALYSIS

We review grants of summary judgment and post-verdict JMOL on state law claims under the law of the regional circuit, since they present procedural issues not unique to patent law. *Koninklijke Philips Elects. N.V. v.*

4. Here, as in his companion appeal, Shum asserts that there is a significant question as to whether subject matter jurisdiction is lacking under this court's decision in *Larson v. Correct Craft, Inc.*, 569 F.3d 1319 (Fed. Cir. 2009). In both instances, Shum's argument lacks merit for the same reason: because his state law claims necessarily involve a substantial question of federal patent law, inventorship, the district court had subject matter jurisdiction. *See Christianson v. Colt Indus. Operating Corp.*, 486 U.S. 800, 808-09 (1988). Further, Shum has not assigned away all of his financial interest in the patents, making him unlike the plaintiff in *Larson*, where the correction of inventorship claims were the sole basis for the district court's subject matter jurisdiction.

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Cardiac Sci. Operating Co., 590 F.3d 1326, 1332 (Fed. Cir. 2010). Here, Ninth Circuit law applies.

Summary judgment “should be rendered if the pleadings, the discovery and disclosure materials on file, and any affidavits show that there is no genuine issue as to any material fact and that the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(c). A “material” fact is one that is relevant to an element of a claim or defense and whose existence might affect the outcome of the suit. *T.W. Elec. Serv., Inc. v. Pac. Elec. Contractors Ass’n*, 809 F.2d 626, 630 (9th Cir. 1987). If the moving party meets its burden of establishing that there is no genuine issue of material fact and is entitled to judgment as a matter of law, then the burden shifts to the nonmoving party to set forth specific facts showing that there is a genuine issue for trial. *Id.*

Judgment as a matter of law is proper “[i]f a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue.” Fed. R. Civ. P. 50(a). The court may “grant a motion for judgment as a matter of law against the party on a claim or defense that, under the controlling law, can be maintained or defeated only with a favorable finding on that issue.” *Id.* A jury’s inability to reach a verdict does not necessarily preclude a judgment as a matter of law. *Headwaters Forest Def. v. Cnty. of Humboldt*, 240 F.3d 1185, 1197 (9th Cir. 2000). The question is “whether the evidence, construed in the light most favorable to the non-moving party, permits only one reasonable conclusion.”

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White v. Ford Motor Co., 312 F.3d 998, 1010 (9th Cir. 2002).

On appeal Shum challenges the district court's grant of summary judgment on his breach of fiduciary duty and fraudulent concealment claims, as well as its grant of post-verdict JMOL on his claims for intentional misrepresentation, breach of contract, unjust enrichment, and co-inventorship of the '427 and '724 patents. In support of his request for a new trial, Shum argues that various evidentiary rulings were erroneous and prejudicial.

We address each of these issues in turn.

I. Breach of Fiduciary Duty

A necessary predicate for claiming breach of a fiduciary duty is showing that such a duty exists. Under California law, moreover, fiduciary duties do not arise or exist untethered from particular relationships or special factual circumstances.

A fiduciary duty exists in certain technical, legal relationships. Particular relationships giving rise to the duty include attorney-client, trustee-beneficiary, guardian-ward, or principal-agent. *Richelle L. v. Roman Catholic Archbishop*, 106 Cal. App. 4th 257, 271 (2003). Outside of these long-recognized categories, California state courts have largely declined to find that a fiduciary duty exists. *Oakland Raiders v. Nat'l Football League*, 131 Cal. App. 4th 621, 633 (2005). For example, a fiduciary duty does not arise between equal shareholders in a corporation merely by virtue of their legal relationship as shareholders. There is similarly no duty even if they also

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serve as directors or officers of the corporation. *Persson v. Smart Inventions, Inc.*, 125 Cal. App. 4th 1141, 1156-59 (2005).

Outside of “technical, legal relationships,” certain factual circumstances surrounding a “confidential relationship” may give rise to a fiduciary relationship, with attendant fiduciary duties. *Id.* at 1159-62. A confidential relationship may arise when one party reposes trust and confidence in another who is aware of that fact. In order for that confidential relationship to also qualify as a fiduciary relationship, four additional requirements must be met. First, one party must be vulnerable. Second, that vulnerability must result in the empowerment of the stronger party by the weaker. Third, that empowerment must have been solicited or accepted by the stronger party. Fourth, the empowerment must prevent the weaker party from effectively protecting itself. *Id.* at 1161; *see also City of Hope Nat’l Med. Ctr. v. Genentech, Inc.*, 43 Cal. 4th 375, 388 (2008).

On appeal, Shum argues that the district court erred in granting summary judgment for defendants with respect to his breach of fiduciary duty claim. As he did below, on appeal Shum argues that Verdiell breached the fiduciary duty that Verdiell owed to Radiance as an officer of the corporation, as well as the fiduciary duty Verdiell owed to Shum as a joint collaborator and equal shareholder in Radiance.

The district court rejected both of Shum’s theories. Assuming that Shum would have standing to sue for any

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breach of fiduciary duty that Verdiell owed to Radiance, the district court nevertheless noted that Verdiell's conduct in obtaining the LightLogic patents occurred after Radiance's formal dissolution, at a time when Radiance no longer existed (and thus was no longer owed a duty by Verdiell).

Further, the district court noted that the POL expressly permitted both Verdiell and Shum to engage in activities "in competition with the business of the Corporation [Radiance]." *Shum v. Intel Corp.*, 630 F. Supp. 2d 1063, 1070 (N.D. Cal. 2009). As for Verdiell's activities before Radiance's dissolution, the district court found that under California law "plans and activities to dissolve and compete with an existing business . . . do not, of themselves, constitute a breach of any fiduciary duty." *Shum v. Intel Corp.*, No. 02-03262, slip op. at 9 (N.D. Cal. Sept. 26, 2008).

The district court similarly found that Verdiell did not owe any fiduciary duty to Shum. Citing the California Court of Appeal's decision in *Persson*, the district court concluded that Shum and Verdiell's legal relationship as shareholders and co-officers of Radiance did not give rise to any fiduciary duty to each other. *Id.* Further, the district court found that the factual circumstances surrounding Shum and Verdiell's relationship as joint collaborators did not establish a confidential relationship with attendant fiduciary duties. At minimum, the district court noted that Shum had produced no evidence of vulnerability or incapacity that might give rise to such a duty. *Id.* at 8.

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We agree that, under either theory, Shum's claim for breach of fiduciary duty fails as a matter of law.

Shum is correct that Verdiell owed a duty to Radiance as an officer of the corporation. Assuming, without deciding, that Verdiell did breach his fiduciary duty to Radiance, Shum still cannot maintain his claim because he lacks standing. Simply put, California law prohibits Shum from bringing an action in his personal capacity or capacity as a shareholder for a breach of duties owed to Radiance, a corporation. *See Nelson v. Anderson*, 84 Cal. Rptr. 2d 753, 762-63 (Ct. App. 1999); *see also* Cal. Corp. Code § 800; *Anderson v. Derrick*, 220 Cal. 770, 773 (1934). Here, the harms Shum alleges are the dissolution of Radiance and diminished value of Radiance's intellectual property. Both of these are injuries to the corporation, not to Shum in his individual capacity as a shareholder. *See Nelson*, 84 Cal. Rptr. 2d at 761. Any damage to Shum is merely incidental to Radiance's injury. *See id.*; *see also Bader v. Anderson*, 101 Cal. Rptr. 3d 821, 840-42 (Ct. App. 2009). To bring a claim on behalf of Radiance, Shum would have had to plead and satisfy California's statutory requirements for a derivative action. *Id.* at 763-64. It is undisputed that Shum has not met these requirements. Accordingly, he has no standing to sue with regards to any duty that Verdiell owed to Radiance as an officer of the corporation.

As for Shum's second theory, Shum cannot establish that Verdiell owes him a fiduciary duty based on either a legal relationship or the factual circumstances of their joint collaboration while with Radiance. We agree with

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the district court that Verdiell and Shum are like the shareholders and co-officers in *Persson*. In *Persson*, the California Court of Appeal rejected Persson's claim that the other shareholder and co-officer owed him a fiduciary duty. 125 Cal. App. 4th at 1159-62. We do the same here.

The undisputed facts similarly fail to show the existence of a confidential relationship between Shum and Verdiell. Simply put, there is no evidence that their relationship while working together at Radiance was characterized by the type of vulnerability that might give rise to a fiduciary duty. *Cf. Richelle L.*, 130 Cal. Rptr. 2d at 611. Shum is not elderly, underage, lacking education, or displaying a weakness of mind, grief, or sickness that might support an inference of vulnerability. *Id.* To the contrary, the record shows that Shum is highly educated, intimately familiar with the technology in question, and was represented by counsel at all relevant times.

For these reasons, the district court properly granted summary judgment in favor of defendants on Shum's breach of fiduciary duty claim.

II. Fraudulent Concealment

Fraudulent concealment involves the "suppression of a fact, by one who is bound to disclose it, or who gives information of other facts which is likely to mislead by want of communication of that fact." Cal. Civ. Code § 1710(3); *see also Rogers v. Warden*, 20 Cal. 2d 286, 289 (1942). Typically, a duty to disclose only arises when there is a fiduciary or confidential relationship between

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the parties. *Warner Const. Corp. v. Los Angeles*, 2 Cal. 3d 285, 294 (1970). A duty may also arise, however, if the defendant (1) has exclusive knowledge of material facts that are not reasonably discoverable by the plaintiff, (2) actively conceals a material fact from the plaintiff, or (3) makes partial representations but suppresses other material facts, rendering the partial disclosure likely to mislead. *Id.*; see also *LiMandri v. Judkins*, 52 Cal. App. 4th 326, 336-37 (1997).

Before the district court, Shum's fraudulent concealment claim was based on Verdiell's failure to disclose that Verdiell was forming LightLogic, a corporation that would compete with Radiance. The district court granted summary judgment in favor of defendants, finding that Verdiell had no duty to disclose this fact, or any other potentially harmful facts, to Shum. In support of this conclusion, the district court emphasized that Verdiell owed Shum no fiduciary duty and no equivalent duty was created by the POL.

On appeal, Shum continues to argue that Verdiell owed him a fiduciary duty because Shum was a shareholder of Radiance and Verdiell was an officer. In the alternative, Shum argues that Verdiell had exclusive knowledge of material facts which he actively concealed, giving rise to actionable fraud. Shum also appears to argue that Verdiell made partial representations while suppressing other material facts, thus committing further fraud.

We agree with the district court that Shum has not made out an actionable claim of fraudulent concealment.

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As explained above, Verdiell owed no fiduciary duty to Shum, and thus had no duty to disclose his plans to form LightLogic or compete with Radiance. As for Verdiell's statement that Shum would have "equal rights" to exploit Radiance's technology, that statement was true. Indeed, the plain language of the POL says exactly that. Similarly, the record does not support Shum's contention that Verdiell had exclusive knowledge of how much Radiance or its technology was worth. It is undisputed that Shum was also talking to potential investors and had received valuation estimates; at minimum, Verdiell had access to no information that Shum could not have reasonably obtained, including estimates by the same venture capitalists. Shum has accordingly failed to meet his burden of showing what "other" material facts were actively suppressed or exclusively known by Verdiell.

III. Unjust Enrichment

Under California law, an unjust enrichment claim requires showing (1) receipt of a benefit (2) that is unjustly retained at the expense of another. *Peterson v. Cellico P'ship*, 164 Cal. App. 4th 1583, 1593 (2008). In other words, merely receiving a benefit from another is not enough; retention of that benefit must also be unjust due to some wrongful conduct by the receiving party. *Cnty. of San Bernardino v. Walsh*, 158 Cal. App. 4th 533, 542-43 (2007).

In this case, Shum's theory of unjust enrichment can be loosely summarized as follows: According to Shum, Verdiell and LightLogic engaged in wrongful conduct by falsely claiming exclusive ownership of the Radiance technology; these false claims of exclusivity were what

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induced (caused) Intel to buy LightLogic, resulting in the unjust enrichment of Verdiell and LightLogic at the expense of Shum and his rights in the technology. In this view, Verdiell and LightLogic were unjustly enriched by some, if not all, of the \$409 million Intel paid for LightLogic, since Shum maintains that the sale would not have occurred but for Verdiell and LightLogic falsely claiming to have exclusive rights in the Radiance technology.

Shum's theory was presented to the jury, who could not reach a verdict on this claim. The district court subsequently granted post-verdict JMOL in favor of defendants. In support of this conclusion, the district court explained that Shum had failed to offer sufficient evidence to prove any element of his unjust enrichment claim. Specifically, the district court found that the record did not show that Verdiell or LightLogic engaged in any wrongful conduct, or that any alleged claims of exclusive rights were what caused Intel to buy LightLogic.

On appeal, Shum renews the arguments he made below. In doing so, he places special emphasis on the pre-merger documents and analysis in which Intel emphasized LightLogic's "ownership," "proprietary" product, and "patent-pending" technology.

We hold that post-verdict JMOL in favor of defendants was proper on Shum's claim for unjust enrichment. Assuming, without deciding, that Verdiell and LightLogic engaged in "wrongful conduct" by making false statements claiming exclusive rights in the LightLogic patents, no reasonable jury could find that these wrongful acts caused

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defendants to receive a benefit at Shum's expense. *See Peterson*, 80 Cal. Rptr. 3d at 323.

Causation is lacking because the record does not support Shum's assertion that Intel purchased LightLogic because it was promised sole or exclusive rights in the Radiance technology. To the contrary, the Intel acquisition documents themselves acknowledge that the Radiance POL gave Verdiell and Shum "*equal rights to independently exploit* the intellectual property developed by Radiance Design, Inc., including the rights under the ['567 patent]." Intel also received a copy of the Radiance POL. Nothing in these documents suggests that Shum's rights were limited to the '567 patent; to the contrary, the Intel documents construe his rights as broadly and vaguely as the "intellectual property developed by [Radiance]." While the statements Shum cites concerning LightLogic's "ownership," "proprietary" product, and "patent-pending" technology suggest that Intel did want to assure that LightLogic had, and would continue to have, a right to use its technology, there is no mention that the sale was contingent on Verdiell and LightLogic having exclusive rights. Testimony by defendants' witnesses similarly suggests that Intel was concerned with buying the right to use the LightLogic patents and technology, not exclusivity. The record thus refutes Shum's contention that the promise of exclusive rights is what lured Intel to the bargaining table and ultimately caused it to purchase LightLogic; rather, the evidence shows that Intel knew it was purchasing LightLogic and LightLogic's intellectual property subject to whatever rights Shum might also have in the Radiance technology.

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An additional, and equally fatal, flaw in Shum’s theory is the absence of evidence showing that defendants received a benefit *at Shum’s expense*. While the evidence does show that LightLogic and Verdiell received \$409 million from Intel, there is no evidence that defendants received any benefit directly from Shum. Nor is there evidence that defendants received the \$409 million from Intel at the expense of Shum’s right to independently exploit the Radiance technology or at any other cost to Shum. Indeed, Shum was not a party to the Intel-LightLogic deal, nor is there any evidence that Shum suffered any tangible loss as a result of Verdiell and LightLogic’s alleged wrongful acts. Shum’s apparent “injuries”—diminished bargaining power due to his later-established inventorship and inability to participate in the Intel-LightLogic deal—are speculative. Shum has not shown that he would have been a party to the deal or even had other negotiations fall through as a result of the alleged wrongful acts. While Verdiell and LightLogic certainly benefited from the Intel-LightLogic deal, there is no evidence they did so at Shum’s expense. *Cf. Major-Blakeney Corp. v. Jenkins*, 263 P.2d 655, 664 (Cal. Ct. App. 1953).

For these reasons, post-verdict JMOL was proper.

IV. Breach of Contract

Under California law, a breach of contract claim requires showing four things: (1) a contract existed; (2) the plaintiff performed his duties under the contract or was excused from nonperformance; (3) the defendant breached the contract; (4) the plaintiff suffered damages as a result of defendant’s breach. *Wall St. Network, Ltd. v. N.Y. Times Co.*, 164 Cal. App. 4th 1171, 1178 (2008).

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Prior to its grant of post-verdict JMOL on this claim, the district court interpreted various sections of the Radiance POL. Two of these provisions are relevant here.

The section titled “Business Activities of the Officers and Directors” states:

Shum and Verdiell acknowledge and agree that, after the approval of this Plan [POL], each shall be entitled, without any liability or duty to account to [Radiance] or to the other, to pursue any and all such other business activities as they shall desire, even if such activities are in competition with the business of [Radiance] and even if they take, or attempt to take, a business opportunity that [Radiance] could have itself pursued.

The district court construed this provision of the POL as eliminating any liability between Shum and Verdiell based on the “business activities” by either Shum or Verdiell in any commercial exploitation of the Radiance technology. It also concluded that the provision allowed Shum and Verdiell to compete with each other without giving notice or accounting for profits. The district court further held that the POL eliminated any liability between Shum and Verdiell based on either party obtaining a lawful patent related to the intellectual property developed at Radiance.

The district court also interpreted a section of the Radiance POL titled “Distribution of Property.” It provides that “Verdiell and Shum shall have equal rights to independently exploit the intellectual property developed

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by [Radiance].” The district court construed this provision as entitling Shum and Verdiell to lawfully patent any of their own inventions in the intellectual property belonging to Radiance.

Both before the district court and on appeal, Shum argues that Verdiell (and LightLogic) breached the express terms of the POL. According to Shum, defendants also breached the attendant implied duty of good faith and fair dealing by applying for and obtaining the LightLogic patents without listing Shum as a co-inventor.

Shum set out this theory at trial in arguing that defendants breached the POL. After the jury deadlocked on the breach of contract claim, the district court granted post-verdict JMOL in favor of defendants. Based on its interpretation of the POL, the district court found that Shum failed to prove this claim as a matter of law.

Based on its conclusion that the POL gave Shum and Verdiell the right to lawfully patent any Radiance technology that belonged to them individually, the district court reasoned that Verdiell could only breach the POL if Verdiell unlawfully obtained a patent. According to the district court, because Verdiell was at least the undisputed co-inventor of all the LightLogic patents, Verdiell’s conduct in obtaining the patents could only have been unlawful if Verdiell knew that Shum was a co-inventor and omitted Shum’s name with the intent to mislead the United States Patent and Trademark Office (“PTO”) as to the true inventor of the patent.

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The district court also found that Shum's breach of contract claim failed for the separate, independent reason that Shum presented no evidence that he was harmed as the result of the alleged breach of the POL. Noting that California law requires a showing of damages in a breach of contract case to be actionable, the district court concluded that Shum's asserted harm—failure to have his rights bought out by Verdiell or LightLogic—was too speculative, given that Verdiell had no duty to buy any rights from Shum.

We agree that defendants were entitled to post-verdict JMOL on Shum's breach of contract claims because, at minimum, Shum has offered no evidence that Verdiell's alleged breach caused any harm. The record shows that Shum abandoned efforts to exploit the Radiance technology in 1998, long before the LightLogic patents issued and before most had even been filed.

Moreover, there is no evidence that Shum suffered financial harm by being omitted from the patents as a co-inventor. Shum's inclusion would not have entitled him to proceeds from the Intel-LightLogic deal, since Verdiell was allowed to sell his rights without any duty to account to Shum. 35 U.S.C. § 262. Nor did Verdiell have any duty under the POL to buy out Shum before forming LightLogic or inking the Intel-LightLogic transaction. Finally, there is no evidence that Shum tried to acquire patents covering the same subject matter or sought to exploit the covered technology in any way that was impeded or prevented by his omission from the patents.

*Appendix A***V. Intentional Misrepresentation**

A party is liable for intentional misrepresentation if (1) the defendant represented to plaintiff that an important fact was true; (2) that representation was false; (3) the defendant knew the representation was false when the defendant made it, or made it recklessly and without regard for its truth; (4) the defendant intended the plaintiff to rely on the representation; (5) the plaintiff did reasonably rely on the representation; (6) the plaintiff was harmed; (7) the plaintiff's reliance on defendant's representation was a substantial factor in causing the harm to the plaintiff. *Manderville v. PCG & S Grp., Inc.*, 146 Cal. App. 4th 1496, 1498 (2007); *see also* Cal. Civ. Code §§ 1709, 1710; *Lazar v. Superior Court*, 12 Cal. 4th 631, 638 (1996).

At trial, Shum's intentional misrepresentation claim was based on Verdiell's statement to Shum in 1997 that the Radiance patent application was invalid and had to be withdrawn.⁵ Shum presented this theory, and only this

5. Shum argues on appeal that the district court "improperly eviscerated" his intentional misrepresentation claim by limiting it to Verdiell's 1997 statement. We disagree.

The district court did not abuse its discretion by requiring Shum to state with particularity which statements this cause of action rested upon. As with any other claim alleging fraud, Shum was subject to a heightened pleading standard under both state and federal law. Fed. R. Civ. P. 9(b); *see also Conrad v. Bank of Am.*, 45 Cal. App. 4th 133, 156 (1996) ("In order to establish a cause of action for fraud a plaintiff must plead and prove in full, factually

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theory, at trial. As with Shum's other state law claims, the jury was unable to reach a verdict. The district court then granted post-verdict JMOL in favor of defendants. It found that the intentional misrepresentation claim failed as a matter of law because Shum had not shown that Verdiell's statement was false or that Shum was harmed as a result of the alleged misrepresentation.

We agree with the district court that post-verdict JMOL on this claim was proper because Shum has not shown that he suffered any monetary loss as a result of Verdiell's alleged misrepresentation, a necessary element under California law. Cal. Civ. Code § 3333; *Strebel v. Brenlar Invs., Inc.*, 135 Cal. App. 4th 740, 749 (2006).

IV. Correction of Inventorship for the '427 and '724 Patents

Inventorship is a question of law we review without deference. *Ethicon Inc. v. U.S. Surgical Corp.*, 135 F.3d

and specifically, all of the elements of the cause of action. General and conclusory claims of fraud will not suffice.”)

As relevant here, Rule 9 requires a plaintiff to state with particularity the basis for his claims. In this case, the record shows that it was Shum's attorney, not the district court, who limited Shum's intentional misrepresentation claim at trial to Verdiell's 1997 statement. While Shum may now be suffering buyer's remorse for choosing only this statement, we can discern no error on the district court's part. In light of the particularity requirement for claims grounded in fraud, Shum was required to disclose the factual basis for his intentional misrepresentation claim; he could not lie in the weeds, obfuscate until a jury was empanelled, then pounce.

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1456, 1460 (Fed. Cir. 1998). Because the inventors named on the issued patent are presumed to be correct, a person seeking to add his name “must meet the heavy burden of proving its case by clear and convincing evidence.” *Eli Lilly & Co. v. Aradigm Corp.*, 376 F.3d 1352, 1358 (Fed. Cir. 2004). A joint inventor “must contribute in some *significant manner* to the conception or reduction to practice of the invention [and] make a contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention.” *Narton Corp. v. Schukra U.S.A. Inc.*, 558 F.3d 1352, 1356 (Fed. Cir. 2009); *see also Fina Oil & Chem. Co. v. Ewen*, 123 F.3d 1466, 1473 (Fed. Cir. 1997).

Here, Shum’s correction of inventorship claims for both patents turn on the question of Shum’s contribution to the idea of adding a second pair of legs to the flexure described in other claims of those respective patents. We agree with the district court that the evidence Shum cites from March 1997 does not show a second pair of legs, while the later drawings and evidence from June 1997 are past the point of conception. The district court correctly granted post-verdict JMOL with respect to claim 1 of the ’724 patent and claim 5 of the ’427 patent.

VII. Evidentiary Rulings

In support of his request for a new trial, Shum argues that various rulings by the district court before and during trial were erroneous and prejudicial.

Our review of the record does not show that the district court abused its wide discretion in limiting the use

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of Intel's interrogatory answers to only Intel, the party that provided them. Similarly, the district court properly admitted the testimony of defendants' experts regarding the effect of PTO assignments. Shum's quarrel with the opinions goes to the weight the opinions warranted, not their admissibility. To the extent language in the assignments themselves contradicted the experts' opinions, Shum was free, as he did, to bring out such contradictions on cross examination. Nor was it unreasonable for the district court to limit the scope of discovery when reopening the record on remand, particularly given that there had already been ample opportunity to develop the record. Finally, we reject Shum's general challenge to the jury instructions, which lacked detail both as to the nature of the error and resulting prejudice.

CONCLUSION

Because Shum has not identified any genuine issues of material fact with respect to his breach of fiduciary duty or fraudulent concealment claims, we affirm the district court's grant of summary judgment as to them. We also affirm the district court's grant of post-verdict JMOL on Shum's claims for unjust enrichment, breach of contract, intentional misrepresentation, and correction of inventorship for the '472 and '724 patents. Shum has not presented sufficient evidence that would allow a reasonable jury to find for him on those claims.

AFFIRMED

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UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

FRANK T. SHUM,

Plaintiff-Appellant,

v.

INTEL CORPORATION, LIGHTLOGIC, INC.,
AND JEAN-MARC VERDIELL,

Defendants-Cross Appellants.

2009-1385, -1419

Appeal from the United States District Court for the
Northern District of California in Case No. 02-CV-3262,
Senior Judge D. Lowell Jensen.

NEWMAN, *Circuit Judge*, dissenting.

The jury verdict was that Frank T. Shum is the joint inventor, and thus owner in common, of five of the six patents presented to the jury. The jury was deadlocked as to the award of damages on the counts that related to issues of

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fraud, misrepresentation, unjust enrichment, and breach of fiduciary duty. The district court entered judgment as to Shum's joint inventorship, and granted judgment as a matter of law as to all of the deadlocked counts. It cannot be said that no reasonable jury could have found any of the liability issues in favor of Shum, for some jurors did find in his favor, although not unanimously. It is relevant that the jury had already found unanimously in favor of Shum as to joint inventorship, which was the foundation of the issues related to damages. In these circumstances, it was improper for the district court, and now this court, to make their own findings of disputed material fact on traditional jury questions. That a jury is deadlocked does not convert fact into law, and the constitutional right is not negated when the jury is deadlocked. *See Union Pac. R.R. Co. v. Bridal Veil Lumber Co.*, 219 F.2d 825, 832 (9th Cir. 1955) ("To do other than send the case back for a new trial when a decision on a vital issue by the jury is missing would deprive the parties of the jury trial to which they are entitled constitutionally."). From my colleagues' endorsement of and participation in this improper procedure, I respectfully dissent.

A

THE PRETRIAL SUMMARY JUDGMENTS

Before the jury trial, and thus before the verdict of joint inventorship, the district court granted summary judgments as to the counts of breach of fiduciary duties and fraudulent concealment.

*Appendix A****Breach of Fiduciary Duties***

This summary judgment was predicated on the duties that Verdiell owed to Radiance and to Shum, who was the only other owner of Radiance. Shum's position was that Verdiell violated his fiduciary duties when he appropriated Shum's inventions as his own and patented their joint technology as his sole and exclusive property. Shum points out that Verdiell filed his first patent application, in his sole name, one day after the Plan of Liquidation of Radiance was executed. The district court held, on summary judgment, that there was no fiduciary obligation as a matter of law, citing *Persson v. Smart Inventions, Inc.*, 125 Cal. App. 4th 1141 (2005).

The ruling in *Persson* was misapplied. *Persson* involved two equal shareholders who parted ways, and then one went on to exploit an opportunity he had not revealed when he bought out the other. The court ruled that no fiduciary duties were owed. *Id.* at 1156-59. Shum argues that there is a significant factual difference, for Verdiell didn't simply exploit an opportunity on which he had remained silent, but did so by patenting Shum's inventions as his own. The district court held that Verdiell's activities were permitted by the Plan of Liquidation, which gave both him and Shum the right to use the Radiance technology.

Shum argues that the Plan of Liquidation did not authorize Verdiell to appropriate the sole and exclusive right to Shum's inventions. Shum states that under California law, former officers of a company continue to owe duties of fair dealing, citing *ViChip Corp. v. Lee*, 438

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F. Supp. 2d 1087, 1100 (N.D. Cal. 2006) (duty violated when an officer who had been asked to step down destroyed certain documents), and *Fox v. Abrams*, 163 Cal. App. 3d 610, 617 (1985) (recognizing post-dissolution fiduciary obligations). Shum stresses that Verdiell's breaching conduct was not that he continued the Radiance business, but that he patented Shum's inventive contributions as his sole invention and exclusive property.

Breach of fiduciary duty is a question of fact. *See City of Hope Nat'l Med. Ctr. v. Genentech, Inc.*, 43 Cal. 4th 375, 391 (2008) (the existence of a fiduciary duty depends on the facts and circumstances of each case). Summary judgment of disputed factual questions is proper only if the evidence, construed in the light most favorable to the non-movant, nonetheless requires that the movant must prevail. *Ybarra v. Reno Thunderbird Mobile Home Vill.*, 723 F.2d 675, 677 (9th Cir. 1984); *see also, Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986) (on motion for summary judgment "the evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor"). This summary judgment motion was decided before the jury had found that Shum was a joint inventor, a finding material to this aspect of fiduciary duty. A reasonable jury could have found this issue in favor of Shum; thus summary judgment was improperly granted, and is incorrectly sustained by the panel majority.

Fraudulent Concealment

The district court also granted summary judgment

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that there was no fraudulent concealment, again before the jury found the joint inventorship of these five patents on the Radiance technology, and even though the question of inventorship was at the core of the asserted fraudulent concealment.

Under California law, fraudulent concealment requires “the suppression of a fact, by one who is bound to disclose it, or who gives information of other facts which are likely to mislead for want of communication of that fact.” Cal. Civ. Code §1710(3). Shum’s fraudulent concealment claim focused on Verdiell’s concealment of Shum’s inventive contributions and thereby patenting of the joint technology as Verdiell’s exclusive property. The Plan of Liquidation cannot be construed as intending to authorize Verdiell to curtail Shum’s equal rights in the Radiance technology, by falsely claiming exclusive patent rights in the technology. Disputed factual questions could not be resolved adversely to Shum on summary judgment, by the district court and this court. *See Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (on motion for summary judgment the court must view the facts in the light most favorable to the non-moving party and give it the benefit of all reasonable inferences to be drawn from those facts).

*Appendix A***B****THE DEADLOCK AT TRIAL**

The jury was unable to reach a verdict on the questions of liability and damages. The district court then granted judgment as a matter of law on all of the issues of liability and damages. Shum states that he is entitled to a new trial on these issues, and points out that he was denied discovery on some aspects on which the district court later criticized the absence of evidence.

Shum presented several theories of liability, as were discussed by the district court in its grant of JMOL.

Unjust Enrichment

Under California law, unjust enrichment requires unjust receipt of a benefit and its wrongful retention. *Peterson v. Cellco P'ship*, 164 Cal. App. 4th 1583, 1593 (2008); *Lectrodryer v. Seoulbank*, 77 Cal. App. 4th 723, 726 (2000) (confirming right to jury trial on unjust enrichment claim). After the jury deadlocked, the district court decided this issue adversely to Shum “as a matter of law.”

Shum states that there was substantial evidence whereby a reasonable jury could have found that Verdiell was unjustly enriched based on Verdiell’s false claims of sole inventorship. Shum points to Verdiell’s assertions of exclusive patent rights, starting with the patent applications where Verdiell declared his sole inventorship when filing the applications, followed by Verdiell’s

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representations on assigning the patent applications to LightLogic in which he averred that “[a]ssignor is the sole and lawful owner of the entire right, title, and interest in and to said inventions.” LightLogic in turn described itself as the “sole and exclusive owner” of these patents, and duly assigned this purported entire and exclusive right to Intel. Shum also pointed to other acquisition documents that referred to LightLogic’s ownership, proprietary products, and patented technology.

A reasonable jury could have found that Verdiell obtained and retained an unjust benefit from these misrepresentations. *See County of Solano v. Vallejo Redev. Agency*, 75 Cal. App. 4th 1262, 1278 (1999) (the term “benefit” for unjust enrichment “denotes any form of advantage”). My colleagues on this panel hold that Shum was required to prove that “the promise of exclusive rights is what lured Intel to the bargaining table and ultimately caused it to purchase LightLogic.” Maj. Op. at 22. That is incorrect; Shum need not prove that but for the falsehood there would have been no transaction at all. My colleagues’ argument that “there is no mention that the sale was contingent on Verdiell and LightLogic having exclusive rights” does not control whether Verdiell and LightLogic were unjustly enriched by the misrepresentations of exclusivity. Shum points to the trial court’s statement, in colloquy with counsel, that for the defendants to argue that Intel did not value the patent ownership would be “crazy.” Transcript of Proceedings held on December 1, 2008 at 2193 ln.18, *Shum v. Intel Corp.*, No. C 02-3262 (N.D. Cal. April 29, 2009).

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The district court, and now my colleagues, err in deciding the question of unjust enrichment adversely to Shum “as a matter of law.” The question of whether these patents were of value in the transaction is factual, and was deemed material by both the district court and my colleagues; however, Intel declined to produce, and the district court refused to compel, Intel documents potentially relevant to this question. A reasonable jury could have found that patent exclusivity was valued, and that Verdiell and LightLogic were unjustly enriched. When the jury could not reach a verdict, the appropriate step was a new trial. *See Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1555 (Fed. Cir. 1989) (vacating judgment and remanding for a new trial where the jury did not return answers on vital issues).

Breach of Contract

Shum argues that Verdiell breached the Plan of Liquidation, and its implied duty of good faith and fair dealing between contracting parties, by obtaining exclusive rights to the Radiance technology in which Shum was intended to have equal rights. The district court held that “as a matter of law” there could be no breach of contract unless the false inventorship claims were made with deceptive intent. That is not the law. It is hornbook law that a contract may be breached whether or not there was deceptive intent. *See New York Life Ins. Co. v. Viglas*, 297 U.S. 672, 678 (1936); *Trauma Service Group v. U.S.*, 104 F.3d 1321, 1325 (Fed. Cir. 1997) (“a breach of contract is a failure to perform a contractual duty when it is due”).

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My colleagues reason that there was no breach because Shum did not “suffer[] financial harm by being omitted from the patents as a co-inventor.” Maj. Op. at 26. That too is not the law of contracts. *See* Restatement 2d of Contracts §235(2) (1981) (“When performance of a duty under a contract is due any non-performance is a breach.”); 11-55 Corbin on Contracts §55.10 (2010) (“a breach of contract that causes no injury is still a wrong to the other contracting party”); 23 Williston on Contracts §63:1 (4th ed. 2010) (“a breach of contract is a failure, without legal excuse, to perform any promise that forms the whole or part of a contract”). The availability or nature of remedy does not decide whether the contract was breached. Restatement, *supra*, at §236, cmt. a (“Even if the injured party sustains no pecuniary loss or is unable to show such loss with sufficient certainty, he has at least a claim for nominal damages.”).

Shum argues that while the Plan of Liquidation authorized both Shum and Verdiell to use the Radiance technology, the filing of patents by which Verdiell exclusively appropriated the Radiance technology was a breach of the Plan. A reasonable jury could have so found. On deadlock of the jury, it was improper for the district court, and again for this court on appeal, to decide these disputed factual questions “as a matter of law.” *See Cal. v. Altus Fin. S.A.*, 540 F.3d 992, 1008-09 (9th Cir. 2008) (remanding for a new trial where the jury deadlocked on vital issues).

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Conclusion

The jury was presented with a complex of legal theories derived from the California Civil Code, not all of which are here discussed. The district court inappropriately terminated the proceedings “as a matter of law,” for there was sufficient evidence on which a jury could have found in favor of Shum on one or more liability theories. Shum is entitled to a retrial. From my colleagues’ improper elimination of this constitutional right, I respectfully dissent.

**APPENDIX B — OPINION OF THE
UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT
DECIDED DECEMBER 22, 2010**

**UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT**

FRANK T. SHUM,

Plaintiff-Appellant,

v.

INTEL CORPORATION, JEAN-MARC VERDIELL,
and LIGHTLOGIC, INC.,

Defendants-Appellees.

2010-1109

Appeal from the United States District Court for the
Northern District of California in case no. 02-CV-3262,
Senior Judge D. Lowell Jensen.

Decided: December 22, 2010

PAUL F. KIRSCH, of San Francisco California,
argued for plaintiff-appellant. On the brief was GREGORY
S. CAVALLO, Shopoff & Cavallo LLP, of San Francisco,
California.

MARK C. FLEMING, Wilmer Cutler Pickering
Hale and Dorr LLP, of Boston, Massachusetts, argued

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for defendants-appellees. With him on the brief were RICHARD W. O'NEILL, and WILLIAM F. LEE; and SETH P.WAXMAN, BRIAN M. BOYNTON, of Washington, DC.

Before NEWMAN, LOURIE, and PROST, *Circuit Judges*.

Opinion for the court filed by *Circuit Judge* PROST.
Dissenting opinion filed by *Circuit Judge* NEWMAN.

PROST, *Circuit Judge*.

This appeal reviews an award of costs in a case where no party prevailed on every claim. The underlying action was filed by an optical engineer named Frank Shum (“Shum”). Shum sought correction of inventorship for seven patents originally issued to his former business partner, Jean-Marc Verdiell (“Verdiell”), arguing that he, Shum, should be named as the sole inventor or co-inventor. *See* 35 U.S.C. § 256. Shum also asserted numerous claims under California law, all of which allegedly stemmed from the sale of Verdiell’s company, LightLogic, Inc. (“Lightlogic”), to Intel Corporation (“Intel”).

The district court correctly observed that both sides won on some claims and lost on others. Shum, for instance, succeeded on some of his inventorship claims, with the jury finding him to be the co-inventor of claims in five of the seven patents-in-suit. As for defendants Verdiell, Intel, and LightLogic, before trial, the district court granted

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their motion to dismiss some of Shum’s state law claims¹ for failure to state a claim. *See* Fed. R. Civ. P. 12(b)(6). The district court also granted summary judgment in favor of the defendants on Shum’s claims for breach of fiduciary duty and fraudulent concealment. Finally, after the jury was unable to reach a verdict on the remaining state law claims,² the district court granted defendants’ post-verdict motion for judgment as a matter of law (“JMOL”). The final judgment in this action entitles Shum to be named as a co-inventor for claims in five of the seven patents-in-suit, but entitles him to none of the more than \$409 million he sought in monetary damages.

Based on this mixed result, the district court concluded that both parties “prevailed” within the meaning of Rule 54(d) of the Federal Rules of Civil Procedure, which governs the award of costs and fees accrued during trial. Acknowledging, however, that Rule 54 might only countenance a single “prevailing party,” the district court held in the alternative that the defendants were the “prevailing party.” The parties were then each awarded the costs associated with the claims they respectively won. After offsetting these amounts, the result was a net costs award of \$134,368.28 to defendants, taxed against Shum. Shum timely appealed.

1. These claims were for conversion, rescission, negligent misrepresentation, intentional interference with contractual relations, and successor liability.

2. These claims were for unjust enrichment, breach of contract, and intentional misrepresentation.

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On appeal, Shum argues that the award of costs must be vacated and recalculated on remand because there can only be one prevailing party. Moreover, according to Shum, he is that prevailing party. Though Shum lost on all of his California law claims and failed to recover any fraction of the more than \$409 million in damages he sought, Shum nevertheless argues that his limited victory on the question of inventorship suffices to make him a prevailing party. Further, as a prevailing party, Shum contends that he is entitled to all of his costs, while defendants are entitled to none of theirs.

We agree that there can be, by definition, only one prevailing party. We nevertheless affirm the award of costs because we agree with the district court's alternative holding that defendants are the prevailing party. Though Shum's victory on his co-inventorship claims changes the names appearing on those patents, it has not materially altered the legal relationship among the parties. Because Shum and Verdiell signed a Plan of Liquidation giving each equal rights to independently exploit the intellectual property arising from their ephemeral business partnership, this action has not materially altered the defendants' behavior in a way that directly benefits Shum. On the other hand, defendants were not liable to Shum for \$409 million. Accordingly, the district court did not abuse its discretion in awarding costs to each party with respect to the claims on which they each prevailed, then netting those sums to arrive at the final figure.

*Appendix B***BACKGROUND**

This appeal is only about costs, not the merits. The merits were appealed separately and are the subject of a companion opinion, *Shum v. Intel Corp.*, No. 2009-1385, -1419. For the purposes of reviewing costs, the following facts matter.

This appeal is the second to this court and but the latest episode in a protracted legal battle, all traceable to a brief and stormy business partnership. Shum and Verdiell are both engineers who work in the optoelectronics field. In 1997, Verdiell and Shum became equal shareholders in a company called Radiance Design (“Radiance”). A brief nine months later, Radiance was formally dissolved pursuant to a plan of liquidation (“Liquidation Plan” or “POL”).

The Liquidation Plan gave both parties equal rights to independently exploit the intellectual property developed by Radiance. After Radiance dissolved, Verdiell filed for, and was issued, the patents that are the subject of this suit. These patents were subsequently assigned to Verdiell’s company, LightLogic. In 2001, Intel purchased LightLogic, including all of its intellectual property rights, for \$409 million.

Upon learning of the sale, Shum filed this action. In his amended complaint, Shum asserted that he should be named as the co-, if not sole, inventor of claims in the seven

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patents-in-suit.³ In addition to these federal inventorship claims, Shum alleged numerous violations of California law: conversion, rescission, negligent misrepresentation, intentional interference with contractual relations, successor liability, breach of fiduciary duty, fraudulent concealment, unjust enrichment, breach of contract, and intentional misrepresentation.

The first appeal to this court occurred after the district court dismissed Shum's claim for unjust enrichment and granted defendants' motion to bifurcate the inventorship and state law claims. Pursuant to the district court's order, the inventorship claims were tried first in a bench trial, after which the state law claims were to be tried by jury. *Shum v. Intel Corp.*, 499 F.3d 1272, 1275 (Fed. Cir. 2007).

Following the bench trial, the district court found that Shum had not shown by clear and convincing evidence that he was an inventor of any claims in the asserted patents. Defendants then renewed their motions for summary judgment on Shum's state law claims. The district court granted the motions and entered judgment for the defendants. Shum appealed to this court ("first appeal"). We vacated the judgment, reversed the dismissal of Shum's unjust enrichment claim, and remanded. *Id.* at 1276-77. In doing so, we agreed that under *Beacon Theatres, Inc. v. Westover*, 359 U.S. 500 (1959), the dis-

3. The patents are U.S. Patent Nos. 5,977,567 ("567 patent"), 6,376,268 ("268 patent"), 6,207,950 ("950 patent"), 6,227,724 ("724 patent"), 6,586,726 ("6726 patent"), 6,585,427 ("427 patent"), and 6,252,726 ("2726 patent").

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strict court abused its discretion in holding a bench trial on Shum's inventorship claim before trying his state law claims to a jury. *Shum*, 499 F.3d at 1276-79. Because Shum's claims had common factual issues, we concluded that Shum was entitled to a jury trial on his state law claims prior to any court determination of his inventorship claim. *Id.* at 1279. We also reinstated Shum's unjust enrichment claim, since it was neither "duplicative" nor "dependent" on Shum's fraudulent concealment claims. *Id.* at 1279-80.

The case returns to us after further proceedings below. Shum has had his jury trial on the inventorship and state law claims. Before trial, Shum withdrew his inventorship claims with respect to the '2726 patent. For the remaining six patents,⁴ Shum limited his claims at trial to co-inventorship, thus abandoning his prior, alternative claims for sole inventorship. The inventorship claims and state law claims for intentional misrepresentation, breach of contract, and unjust enrichment were submitted to the jury.

The jury found that Shum was the co-inventor of some claims in five of six patents at issue during trial.⁵ The jury was unable to reach a verdict on Shum's inventorship claims for the '427 patent and for one additional claim in

4. The six patents disputed at trial were the '567 patent, '268 patent, '950 patent, '6726 patent, '724 patent, and '427 patent.

5. As stated previously, Shum withdrew his correction of inventorship claims for the '2726 patent before trial.

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the '724 patent.⁶ It also hung on all of Shum's remaining state law claims. After declaring a mistrial, the district court entertained defendants' motion for judgment as a matter of law. Consistent with the jury verdict, the court then entered judgment for Shum on his co-inventorship claims for the five patents on which the jury reached a verdict. It then entered judgment for defendants on the remaining claims, finding that Shum failed to introduce sufficient evidence to prove liability or damages for the state law claims, or to permit a reasonable jury to find Shum the co-inventor of the '427 patent or the additional claim of the '724 patent.

Following entry of judgment, both parties submitted bills of costs pursuant to Federal Rule of Civil Procedure 54. The Clerk of Court taxed costs of \$507,644.82 in defendants' favor and costs of \$195,523.27 in Shum's favor. Offset against each other, Shum thus owed \$313,121.55 in costs to defendants. Before the district court, Shum moved to deny defendants costs on two grounds. First, Shum argued that defendants were not entitled to costs because they were not the "prevailing party" within the meaning of Rule 54. Second, Shum argued that certain items in defendants' bill of costs should be disallowed.

With modifications to certain cost items submitted by defendants, the district court upheld the award of costs. As to the threshold question of who was the prevailing party, the district court found that Shum and defendants

6. The jury unanimously found that Shum was the inventor of claims 1, 7, 14, and 16 of the '724 patent.

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were both prevailing parties, because both had prevailed with respect to some claims. Acknowledging that the law might require it to choose a single prevailing party, the district court held in the alternative that defendants were the prevailing party. In support of this determination, the district court noted that rather than being ordered to pay the over \$400 million in damages sought by Shum, defendants owed nothing. Further, defendants retained their inventorship rights and ability to commercially exploit the covered technology. Though Shum gained legal title to five patents as a co-inventor, the district court found this limited victory did not materially alter the parties' legal relationship because Shum already had the right to commercially exploit the covered technology under the Radiance POL.

Shum timely appealed the district court's award of costs. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).⁷

7. We reject Shum's argument that the district court lacked subject matter jurisdiction based on Shum supposedly lacking a "concrete financial interest" in the patents-in-suit. At minimum, Shum's state law claims necessarily depended on the resolution of a substantial question of federal patent law, inventorship. *See Christianson v. Colt Indus. Operating Corp.*, 486 U.S. 800, 808-09 (1988); *Hunter Douglas, Inc. v. Harmonic Design, Inc.*, 153 F.3d 1318, 1330 (Fed. Cir. 1998), overruled in part on other grounds, *Midwest Indus., Inc. v. Karavan Trailers, Inc.*, 175 F.3d 1356 (Fed. Cir. 1999).

This court's decision in *Larson v. Correct Craft, Inc.* is not to the contrary. 569 F.3d 1319 (Fed. Cir. 2009). Shum is not like the plaintiff in *Larson*, who had already transferred title to the

*Appendix B***ANALYSIS**

Rule 54(d)(1) governs the award of costs. It provides that “[u]nless a federal statute, these rules, or a court order provides otherwise, costs—other than attorney’s fees—should be allowed to the prevailing party.” Fed. R. Civ. P. 54(d)(1). An award of costs thus involves two separate inquiries. *Power Mosfet Techs., L.L.C. v. Siemens AG*, 378 F.3d 1396, 1407 (Fed. Cir. 2004). First, who is the “prevailing party” within the meaning of Rule 54(d)(1). Second, how much (if any) costs should be awarded to the prevailing party.

We address these questions below.

I. Prevailing Party

Federal Circuit law defines “prevailing party” for the purposes of patent litigation. *Manildra Milling Corp. v. Ogilvie Mills, Inc.*, 76 F.3d 1178, 1182 (Fed. Cir. 1996). Determination of the prevailing party is a question of law reviewed de novo. *Inland Steel Co. v. LTV Steel Co.*, 364 F.3d 1318, 1320 (Fed. Cir. 2004).

patents for which he sought correction of inventorship, and thus had no ownership interest in the patents-in-suit. *Id.* at 1326-27. Our conclusion that the plaintiff in *Larson* suffered no injury-in-fact sufficient to confer constitutional standing was based on that transfer of ownership rights. No such transfer or assignment has occurred here. Accordingly, Shum had, and continues to have, standing to pursue his correction of inventorship claims under 35 U.S.C. § 256.

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On appeal, Shum argues that it was error for the district court to declare both him and the defendants “prevailing parties” within the meaning of Rule 54(d)(1). We agree.

The district court is correct that both parties won or, said another way, “prevailed,” on certain claims and lost on others. But just because a party can be said to have “prevailed” on a claim does not necessarily make him a “prevailing party” as the term is used in Rule 54.

The question then is whether Rule 54 limits how many “prevailing parties” there can be in a particular case. To answer that question, we begin with the text of the statute. Rule 54(d)(1) awards costs to “*the* prevailing party.” Fed. R. Civ. P. 54(d)(1) (emphasis added). In our view, the plain language of Rule 54 unambiguously limits the number of prevailing parties in a given case to one because the operative term, “prevailing party,” is singular. Had Congress intended for there to be multiple prevailing parties, it could easily have said so, substituting “parties” for “party.”

Our conclusion that there can only be one prevailing party in a given case is reinforced by the use of the definite article “the” before “prevailing party.” Alternatives like “a,” “any,” or “some” lead to phrases like “*a* prevailing party” and “*any* prevailing party.” These hypothetical, unenacted versions of Rule 54 could be read to suggest that it is possible to have more than one prevailing party in an action. However, none of these theoretical alternatives

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is what Congress enacted. In our view, the word Congress did use, “the,” is evidence that what follows, “prevailing party,” is specific and limited to a single party. *See Rapanos v. United States*, 547 U.S. 715, 732 (2006) (relying on use of “the” as evidence the statute narrowed the type of “waters” at issue); *Rumsfeld v. Padilla*, 542 U.S. 426, 434-35 (2004) (relying on use of the definite article as evidence there was “generally only one proper respondent to a given prisoner’s habeas petition”); *Freytag v. Comm’r*, 501 U.S. 868, 902 (1991); *see also* Webster’s Third New International Dictionary 2368 (1981) (discussing the difference between the indefinite articles “a” and “an” and the definite article “the”). Rule 54(d) has no special rule or exception for mixed judgment cases, where both parties have some claims decided in their favor, as occurred here. Thus, even in mixed judgment cases, punting is not an option; Rule 54 does not allow every party that won on some claims to be deemed a “prevailing party.” For the purposes of costs and fees, there can be only one winner. A court must choose one, and only one, “prevailing party” to receive any costs award.⁸

The rub, of course, is choosing the “prevailing party” in a mixed judgment case like this one. To be a “prevail-

8. That is not to say, of course, that the court must award a prevailing party costs. Depending on the extent and nature of the prevailing party’s victory, it may be proper for the trial court to award only low costs or no costs at all. *See Farrar*, 506 U.S. at 115; *Manildra Milling*, 76 F.3d at 1183. As we explained in *Manildra Milling*, even if a party satisfies our prevailing party test, the trial court “retains broad discretion as to how much to award, *if anything*.” 76 F.3d at 1183 (emphasis added).

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ing party,” our precedent requires that the party have received at least some relief on the merits. That relief must materially alter the legal relationship between the parties by modifying one party’s behavior in a way that “directly benefits” the opposing party. *Farrar v. Hobby*, 506 U.S. 103, 111-13 (1992); *Manildra Milling*, 76 F.3d at 1182; see also *Inland Steel*, 364 F.3d at 1320; *Former Emps. of Motorola Ceramic Prods. v. United States*, 336 F.3d 1360, 1364 (Fed. Cir. 2003). A party is not required, however, to prevail on all claims in order to qualify as a prevailing party under Rule 54. See *Kemin Foods, L.C. v. Pigmentos Vegetales Del Centro S.A. De C.V.*, 464 F.3d 1339, 1347-48 (Fed. Cir. 2006).

Here, our inquiry accordingly focuses on the relief Shum and defendants respectively received. Based on an examination of the parties’ respective successes, we hold that defendants are the “prevailing party” for the purposes of Rule 54. As set out in our companion opinion on the merits, *Shum v. Intel Corporation*, No. 2009-1385, -1419, defendants won on all of Shum’s state law claims. Before trial even began, the district court dismissed Shum’s claims for conversion, rescission, negligent misrepresentation, intentional interference with contractual relations, and successor liability for failure to state a claim. See Fed. R. Civ. P. 12(b)(6). The district court also granted summary judgment in favor of defendants on Shum’s claims for breach of fiduciary duty and fraudulent concealment. After the jury hung on Shum’s claims for intentional misrepresentation, unjust enrichment, and breach of contract, the district court granted post-verdict JMOL in favor of the defendants on those claims.

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Defendants also won by post-verdict JMOL on Shum's correction of inventorship claims for the '427 patent and claim 5 of the '724 patent. As a result, defendants do not owe, and thus will not pay, any of the \$409 million in damages and restitution sought by Shum. Further, defendants retain sole ownership and inventorship of the '427 patent and claim 5 of the '724 patent. We agree with the district court that the relief defendants obtained on these claims alters the legal relationship of the parties: in addition to avoiding significant monetary liability, the judgment in defendants' favor will have res judicata effect in any future action. *See Inland Steel*, 364 F.3d at 1320-21.

In contrast, Shum's victory was limited to his claims for correction of inventorship. For five of the seven patents originally at issue, Shum successfully established that he was the co-inventor of some claims. This determination gives Shum a property interest in the five patents. It also requires the U.S. Patent and Trademark Office to correct the inventorship and assignments of those patents to reflect Shum's status as a co-inventor.

Shum argues that he should be considered a "prevailing party" because he obtained some of the benefits he sought in bringing suit—namely, correction of inventorship. Shum is correct that his limited victory "alter[ed] the legal relationship between the parties." *Manildra Milling*, 76 F.3d at 1182. As a result of the judgment, Shum is now the co-owner of five patents Intel bought from Verdiell. Shum will also henceforth be listed as the co-inventor, while Verdiell has lost his status as sole inventor.

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Not every alteration in the legal relationship between parties, however, satisfies our prevailing party test. Instead, the alteration must be (1) material and (2) “modify[] the defendant’s behavior in a way that directly benefits the plaintiff.” *Manildra Milling*, 76 F.3d at 1182 (quoting *Farrar*, 506 U.S. at 111-13). Despite Shum’s protestations to the contrary, the question of inventorship was not the “central issue” in this case. As the district court found, this case was about the money. Indeed, Shum initially pled only state law claims, for which he requested over \$409 million in damages and restitution; the correction of inventorship claims were added later, in a subsequent amendment.

We find it dispositive that Shum’s limited victory—a declaration of co-inventorship—has not met the second requirement under our prevailing test: the victory has not modified defendants’ behavior in a way that significantly benefits Shum. *Id.* As we explained in *Singer v. Office of Senate Sergeant at Arms*, 173 F.3d 837, 842 (Fed. Cir. 1999), it is not enough that the issue was contested, actually litigated, and ultimately decided in a party’s favor; the recognition of Shum’s co-inventorship status also had to confer some material benefit on Shum. We agree with the district court that Shum received no material benefit with respect to any of the defendants.

For example, with respect to Verdiell, Shum’s co-inventorship status has not given Shum a competitive advantage or required Verdiell to change his behavior. Under the POL which dissolved Radiance, Shum and Verdiell

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acknowledge[d] and agree[d] that, after the approval of this Plan [POL], each of them *shall be entitled, without any liability or duty to account to the Corporation or to the other, to pursue any and all such other business activities as they shall desire*, even if such activities are in competition with the business of the Corporation and even if they take, or attempt to take, a business opportunity that the Corporation could have itself pursued.

(emphasis added.) The district court found that the declaration of co-inventorship did not give Shum any rights in the patented technology that he did not already have under the POL. We agree. Even before Shum was declared a co-inventor, the POL gave him the right to exploit the covered technology without incurring any financial liability or legal obligations to Verdiell. *Cf. Singer*, 173 F.3d at 842 (holding that official recognition of depression did not make petitioner a “prevailing party” because it entitled him to no benefits beyond those the agency was already giving him).

Similarly, Shum’s co-inventorship status does not give Shum a competitive advantage with respect to Intel or LightLogic, nor does it require either company (Intel or LightLogic) to change its behavior. By purchasing LightLogic, including Verdiell’s share of the patents, Intel became a co-owner of the patents-in-suit. As a co-owner, Intel acquired and retains the right to make, use, license, offer to sell, or sell the inventions covered by the patents, with or without Shum’s consent. *See* 35 U.S.C. § 262.

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Shum’s victory is thus unlike the success obtained by the prevailing parties in cases like *Farrar* and *Manildra Milling*. In *Farrar*, plaintiffs obtained an award of nominal damages; in *Manildra Milling*, the plaintiff won a declaration that the competitor’s patent was invalid. *Farrar*, 506 U.S. at 111-12; *Manildra Milling*, 76 F.3d at 1183; see also *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 670 (Fed. Cir. 2000); *Gentry Gallery, Inc. v. Berklene Corp.*, 134 F.3d 1473, 1480 (Fed. Cir. 1998) (noting that obtaining an injunction might also constitute a “benefit” qualifying a party for prevailing party status). Likewise, an injunction or judgment of infringement can both satisfy the prevailing party test because each constitutes “relief on the merits which alters . . . the legal relationship of the parties.” *Inland Steel*, 364 F.3d at 1320; *Kemin Foods*, 464 F.3d at 1348. As this court stated in *Manildra Milling*, a party that obtains an injunction, declaration of patent invalidity, or judgment of infringement gains “significant latitude” and frequently a “competitive edge” vis-à-vis the opposing party. 76 F.3d at 1183. Here, by contrast, Shum’s victory resulted in no equivalent gain because the POL already gave him those rights.

Because we agree with the district court’s alternate holding that defendants are the “prevailing party” within the meaning of Rule 54, we turn to the reasonableness of the cost award.

II. Cost Award

Whether an award of costs is reasonable is determined under the law of the regional circuit. *Manildra*

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Milling, 76 F.3d at 1183. Accordingly, in this case we apply Ninth Circuit law. The Ninth Circuit reviews the reasonableness of a costs award for abuse of discretion and is “hesitant” to find an abuse of the trial court’s broad discretion over costs. *K-S-H Plastics, Inc. v. Carolite, Inc.*, 408 F.3d 54, 60 (1969). This deferential review is still guided, however, by Rule 54(d)(1), which the Ninth Circuit has construed as creating a presumption in favor of awarding costs to the prevailing party. *Champion Produce, Inc. v. Ruby Robinson Co.*, 342 F.3d 1016, 1022 (Fed. Cir. 2003); *Dawson v. City of Seattle*, 435 F.3d 1054, 1070 (9th Cir. 2006); *Save Our Valley v. Sound Transit*, 335 F.3d 932, 944 (9th Cir. 2003). To overcome this presumption, the losing party must establish a reason to deny costs and the district court must give specific reasons for refusing to award costs. *Champion Produce*, 342 F.3d at 1022; *Stanley v. Univ. of S. Cal.*, 178 F.3d 1069, 1079 (9th Cir. 1999).

In this case, Shum argues that the district court abused its discretion by awarding defendants part of their costs associated with the first bench trial, as well as various costs associated with demonstrative exhibits, copying charges, and expert witness fees.

Under the Ninth Circuit’s deferential standard of review, we cannot agree. It was not error for the district court to wait until the case was finally decided, after the second trial, to determine the prevailing party and award costs. When it finally did award costs, the district court carefully considered and meticulously explained its reasoning. It was not unreasonable for the district court to

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consider which claims the parties respectively won, or to reduce the prevailing party's costs award to reflect the extent of its victory (i.e., the claims it lost). Here, the district court accounted for the claims defendants lost in precisely that fashion: it reduced defendants' costs associated with the claims they won by the costs incurred by Shum on the claims he won. Further, given that defendants ultimately won on the all of the state law claims and that Shum's limited victory on some inventorship claims did not modify defendants' behavior in a way that materially benefited Shum, the district court did not abuse its discretion by awarding half of the costs associated with the first bench trial to defendants. As for Shum's other quarrels with the costs award, Shum has given no reasons on appeal that were not already addressed and reasonably rejected by the district court. Shum has thus failed to overcome the Ninth Circuit's strong presumption of awarding costs to the prevailing party.

CONCLUSION

For the foregoing reasons, we hold that defendants were the prevailing party and the district court did not abuse its discretion in considering the parties' relative success when awarding costs in this mixed judgment case. The award of costs is affirmed.

AFFIRMED

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UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

2010-1109

FRANK T. SHUM,

Plaintiff-Appellant,

v.

INTEL CORPORATION, JEAN-MARC VERDIELL,
AND LIGHTLOGIC, INC.,

Defendants-Appellees.

Appeal from the United States District Court for the Northern District of California in Case No. 02-CV-3262, Senior Judge D. Lowell Jensen.

NEWMAN, *Circuit Judge*, dissenting.

The award of “costs” is rarely of sufficient legal substance to warrant appellate attention, much less appellate dissent. But here the award is so flawed that it indeed was appealed, and its affirmation by my colleagues raises important concerns of justice and fairness, as well as conformity with rule and precedent.

On his first appeal to the Federal Circuit, Mr. Shum obtained a reversal and remand of the major issue in dispute, that is, inventorship of five patents obtained by Verdiell and sold to Intel on the Radiance technology.

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Shum v. Intel Corp., 499 F.3d 1272 (Fed. Cir. 2007). Despite Shum’s success on appeal, the district court awarded Intel \$77,200 in costs for the first trial, which was half the amount submitted. Upon the second trial, Mr. Shum obtained unanimous jury verdicts that he is the joint inventor of five patents on the technology for which Intel paid \$409 million. Thus Shum obtained the right to make, use, sell, license, and otherwise exploit the inventions that Verdiell had patented as his sole invention and that Intel had purchased for exclusive ownership. Nonetheless the district court, holding that neither side prevailed or alternatively that the defendants prevailed, awarded net costs in favor of defendants and against Shum, in the amount of \$134,368.28. This award is contrary to precedent, and inappropriate.

This is not the rare case in which a court might exercise its discretion, in the interest of justice, to mitigate the burdens of trial. I must protest this unusual ruling, whereby the losing side that presented a more expensive case¹ is awarded the amount by which its costs exceeded those of the prevailing party. From my colleagues’ endorsement of this award of net costs to the losing party, I respectfully dissent.

DISCUSSION

The Federal Rules provide that “costs” shall be taxed in favor of the prevailing party. By every measure Shum

1. For example, Intel’s bill of costs includes over \$200,000 for “demonstrative exhibits,” “graphics,” and “models,” for use at trial, on which Shum spent less than \$60,000.

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is the prevailing party, not the defendants. Shum obtained the judgment of joint inventorship that established his ownership in common of five of the six patents previously held exclusively by the defendants. When the district court refused to retry the deadlocked issues concerning monetary remedy and instead decided them “as a matter of law” in favor of the defendants, the defendants avoided damages, but they still lost exclusive ownership of the patented technology. This did not convert the defendants into “the prevailing party.”

“Because a plaintiff prevails by achieving some of the benefit sought in bringing suit, it follows that a defendant is a prevailing party only if the plaintiff obtains no relief whatsoever from the litigation.” 10 James Wm. Moore, *Moore’s Federal Practice* §54.171[3][c], at 54-310 (3d ed. 2010). Whatever the monetary value of Shum’s victory, it is apparent that Intel and Mr. Verdiell did not prevail, for they lost the exclusivity of five patents for which Shum was adjudged the joint inventor, and simply avoided monetary damages when the jury hung and the district court refused a retrial.

The Court explained in *Farrar v. Hobby*, 506 U.S. 103 (1992), that “a plaintiff ‘prevails’ when actual relief on the merits of his claim materially alters the legal relationship between the parties by modifying the defendant’s behavior in a way that directly benefits the plaintiff.” *Id.* at 111-12. In *Manildra Milling Corp. v. Ogilvie Mills, Inc.*, 76 F.3d 1178 (Fed. Cir. 1996), the court applied this reasoning to taxation of costs in patent litigation in which the plaintiff did not obtain monetary damages, but the court held that the plaintiff was the prevailing party because a “judicial

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declaration that one is free from another's right to exclude alters the legal relationship between the parties." *Id.* at 1183. The jury's verdict granting Mr. Shum co-ownership of five of the six litigated patents was a victory that altered the legal relationship of the parties to Mr. Shum's benefit.

Although it is now final on this appeal that Mr. Shum will not receive a retrial on monetary damages, the Court explained in *Farrar* that "the prevailing party inquiry does not turn on the magnitude of the relief obtained." 506 U.S. at 114. Mr. Shum now has the unchallengeable right to make, use, and sell for others to use, the five patented inventions "without the consent of and without accounting to the other owners." 35 U.S.C. §262. In *Manildra Milling* this court explained that: "The freedom to practice an invention without fear of suit by the patentee is a valuable commercial benefit. By removing the potential threat of the patentee instituting an infringement action, the competitor necessarily alters the patentee's subsequent behavior to his benefit." 76 F.3d at 1183. The rights Mr. Shum has won here are greater than freedom from suit, for Shum became the co-owner of five patents that had previously been the exclusive property of Verdiell, LightLogic, and now Intel.

My colleagues state that Shum was not the prevailing party because the judgment of joint inventorship and the ensuing co-ownership "did not give Shum any rights in the patented technology that he did not already have under the POL." Maj. Op. at 14. This is plainly incorrect. The trial record is replete with Verdiell's assertions of exclusivity, and that the patented subject matter was not included in the Radiance technology subject to the POL. Intel and

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Verdiell vigorously disputed Shum's claims, stating that "the issue of inventorship is at the heart of the case" and a "necessary element" of all of the other claims. Defs.' Opp'n to Pl.'s Mot. to Remand at 4-5, *Shum v. Intel Corp.*, No. C 02-03262 (N.D. Cal. Nov. 1, 2002). Only now that Shum has prevailed do Intel and Verdiell proclaim that Shum already had what he won by jury verdict. However, at trial the defendants testified and argued that these patents and the technology they claimed were not part of the Radiance technology and that Shum had no rights in any of it.

Whatever the "prevailing" status of Shum, it is clear that Intel and Mr. Verdiell are not the prevailing party. Applying precedent, Mr. Shum won the judgment that he was a joint inventor of five of the six patents from which he had been excluded, and thus owner in common of these patents. *See Manildra Milling*, 76 F.3d at 1183 (the plaintiff was the prevailing party when the adverse patent was invalidated, although federal and state law claims were lost and no damages were awarded). Shum is now assured that he and his transferees cannot be sued on these patents, and that his right to practice and to grant licenses to the patented subject matter is not subject to challenge. The district court reasoned that Shum's joint invention and co-ownership "did not give Shum a competitive edge over Verdiell in the marketplace." *Shum v. Intel Corp.*, 682 F. Supp. 2d 992, 997 (N.D. Cal. 2009). However, obtaining a competitive edge in the marketplace is not a requirement of being the prevailing party in litigation.

Partial or apportioned costs have on occasion been awarded, when appropriate to the circumstances. *See* 10

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Wright & Miller, *Federal Practice & Procedure* §2667 (3ded. 2010); *Ortho-McNeil Pharm., Inc., v. Mylan Labs. Inc.*, 569 F.3d 1353, 1358 (Fed. Cir. 2009); *K-S-H Plastics, Inc. v. Carolite, Ind.*, 408 F.2d 54, 60 (9th Cir. 1969). This court has observed that costs should be apportioned only under “limited circumstances, such as when the costs incurred are greatly disproportionate to the relief obtained.” *Kemin Foods, L.C. v. Pigmentos Vegetales Del Centro S.A. de C.V.*, 464 F.3d 1339, 1348 (Fed. Cir. 2006) (citing 10 *Moore’s Federal Practice* §54.101[1][b] (3d ed.2006)). Here the district court did not apportion “greatly disproportionate” costs; the court simply required Shum to pay Intel the amount by which Intel’s costs exceeded Shum’s costs. This form of apportionment has no support in precedent or in logic, and in this case is unfair.

When the plaintiff as well as the defendant have lost on significant issues, courts have generally awarded “no costs.” See *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 670 (Fed. Cir. 2000); *Kropp v. Ziebarth*, 601 F.2d 1348, 1358 n.27 (8th Cir. 1979) (where neither party prevails, it is “quite appropriate to deny costs to both parties” (citing *Srybnik v. Epstein*, 230 F.2d 683, 686 (2d Cir. 1956))); *Brunswick-Balke-Collender Co. v. Am. Bowling & Billiard Corp.*, 150 F.2d 69, 74 (2d Cir. 1945) (affirming denial of costs where both parties to a suit involving patent and trademark infringement prevailed in part); 10 *Federal Practice & Procedure* §2668 (3d ed. 2010) (the denial of costs to both sides “has been considered appropriate when neither side entirely prevailed, or when both sides prevailed”).

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In *Ruiz*, this court held that “neither party prevailed sufficiently to require an award of costs,” where the patent was declared invalid but no damages were awarded on the state law claims. 234 F.3d at 670. Thus even if Shum’s victory is viewed as no better than nominal, the proper result is “no costs,” not an award to the losing party. The Supreme Court in *Farrar* stated that when a victory is nominal “the only reasonable fee is usually no fee at all.” 506 U.S. at 115.

As mentioned *ante*, the district court also taxed Mr. Shum for half of Intel’s costs associated with the first trial, which this court reversed and remanded in Mr. Shum’s favor. *Shum v. Intel Corp.*, 499 F.3d 1272 (Fed. Cir. 2007). A determination of who is the prevailing party should be made when the controversy is finally decided. *See* 10 *Federal Practice & Procedure* §2667 (3d ed. 2010). Yet the district court charged Mr. Shum with \$77,200, which were half of Intel’s costs for the first trial, in which Shum succeeded on appeal.

In accordance with precedent, Mr. Shum is the prevailing party. At worst, the award should be “no costs.” The district court exceeded its discretion in requiring Shum to pay Intel the difference between Shum’s lower costs and Intel’s higher costs, even on the district court’s theory that it was “close” as to which side “prevailed.” It is grievously unjust to tax Mr. Shum with the net costs of Intel’s unsuccessful but more expensive defense. This approach cannot be reconciled with any theory of taxable costs. From my colleagues’ endorsement of this ruling, I respectfully dissent.

**APPENDIX C — ORDER OF THE UNITED
STATES DISTRICT COURT FOR THE NORTHERN
DISTRICT OF CALIFORNIA,
FILED SEPTEMBER 26, 2008**

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF
CALIFORNIA

No. C-02-03262-DLJ

Frank T. Shum,

Plaintiff,

v.

Intel Corp., et al.,

Defendants.

ORDER

On July 25, 2008, the Court heard argument on Defendants' motions for summary judgment. Stephen E. Taylor appeared on behalf of Defendants Intel Corporation (Intel), LightLogic, Inc. (LightLogic), and Jean-Marc Verdiell (Verdiell). Paul F. Kirsch appeared on behalf of Frank Shum (Shum). Having considered the arguments of counsel, the papers submitted, the applicable law, and the record in this case, the Court GRANTS Defendants' motion in part and DENIES in part.

*Appendix C***I. BACKGROUND***A. Factual Background*

Shum and Verdiell are optical engineers. They met in 1994 when both worked at a company called SDL Technologies (SDL), a manufacturer of lasers and laser diodes. At the time, they discussed their respective ideas for the design and the construction of optoelectronic devices, as well as the possibility of forming a separate company of their own to further explore these ideas. Verdiell already had his own company, named aCADian, which was an optoelectronic software company.

In June of 1996, Shum left SDL and formed a sole proprietorship named Radiance Design, Inc. (Radiance), with the goal of developing optoelectronic devices. Radiance submitted a number of proposals for government funding of its ideas: on July 2, 1996, a pre-proposal to the Army; on August 25, 1996, a similar proposal to NASA; and on December 2, 1996, another proposal to the Army. Each proposal was signed by Shum. Although Verdiell remained employed at SDL, he worked with Shum in the preparation of these proposals. At the suggestion of Verdiell, Lumen Intellectual Property Services (Lumen), a patent firm, was engaged and began work on a patent application for Radiance.

In April 1997, Verdiell left SDL technologies and on April 22, 1997, Radiance Design Inc. was incorporated with Verdiell as President and Treasurer and Shum as Vice President and Secretary, and with each of them as the only, equal, shareholders. At the time of incorporation

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Shum assigned his invention and patent application rights to Radiance. On the same day, a patent application related to optoelectronic technology was filed on behalf of Radiance. Marek Alboszta (Alboszta), of Lumen, prepared this patent application, which named Shum as the sole inventor.

While the patent application filed in April was pending, Verdiell informed Alboszta that he was an inventor of the subject matter covered by the patent. Shum states that Alboszta informed him of this new information from Verdiell and stated, to Shum, that if Verdiell is an inventor the application must be withdrawn. Subsequently, Radiance withdrew the pending application on November 17, 1997.

At about this time, the relationship between Shum and Verdiell deteriorated. Both Shum and Verdiell hired lawyers to negotiate the dissolution of Radiance and a Plan of Liquidation (POL) was drafted. During the dissolution negotiations, Verdiell was represented by John C. Gorman, an attorney and partner of the Gorman & Miller law firm. Shum was represented by the Coudert Brothers law firm.

A Plan of Liquidation was agreed upon and executed on January 5, 1998. Radiance was dissolved as of that date. The day after the dissolution took effect, Alboszta filed a patent application, which covered the same optoelectronic technology as the withdrawn patent application. This patent application named Verdiell as the sole inventor, and indicated that the patent was assigned to LightLogic, a company newly formed by Verdiell. Verdiell had formed LightLogic, without notice to Shum, three days before the

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original patent application was withdrawn in November 1997. Based on this application, United States Patent No. 5,977,567 ('567) was issued on November 2, 1999, listing Verdiell as the sole inventor. After Radiance was dissolved, over the next several years, LightLogic obtained six additional patents (United States Patent Nos. 6,376,268 ('268); 6,207,950 ('950); 6,586,726 ('6726); 6,227,724 ('724); 6,585,427 ('427); and 6,252,726 ('2726)). Each patent named Verdiell as the sole inventor.

These seven patents cover three separate areas of optoelectronic technology. The first area can be referred to as "Dual Enclosure" technology and involves only a single patent - the '2726 patent. This invention describes an optoelectronic package which is comprised of two separate enclosures designed to regulate the temperature within the package in a cost-efficient manner. The second technology group is referred to by the parties as "Direct Bonded Copper" or "Step" technology and two patents, '567 and '268, are involved. These patents disclose an optoelectronic package consisting of a substrate made of an insulating ceramic material, and a layer of copper that is bonded to this substrate. The third technology group is called "Flexure" technology and four patents, '950, '724, '427, and '6726, are involved. These inventions address the problem of precisely aligning a laser diode and an optical fiber during an automated fiber-optic assembly process, and of keeping the two components aligned during use.

Shum contends that he was an inventor or co-inventor of the subject matter claimed by these seven patents while he and Verdiell worked together at Radiance.

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In June 2001, Defendant Intel Corporation (Intel) acquired LightLogic along with the rights to the '567 patent and the six additional patents issued to LightLogic.

A more detailed description of this history is contained in the previous Orders of the Court filed in this case.

B. Procedural History

In 2001, Shum filed his original complaint in this action in California state court, and then filed a first amended complaint in state court in May 2002. The first amended complaint was brought against Intel, Verdiell, Lumen, Alboszta, and Gorman, and contained numerous state causes of action, essentially based on fraud related claims.

On July 9, 2002, Intel removed the case to federal district court.

On December 19, 2002, Shum filed a second amended complaint in this Court. This complaint essentially repleaded the original state causes of action and added a federal cause of action for Correction of Patent Inventorship pursuant to 35 U.S.C. § 256.

On January 21, 2003, Intel and Verdiell filed a motion to dismiss the second amended complaint. This Court entered an Order on March 25, 2003, granting in part and denying in part Defendants' motion to dismiss. Among the dismissed claims was a claim under California State Law for Unjust Enrichment. The Court dismissed this claim on the basis that it was duplicative of the causes of action for fraud.

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On April 15, 2003, Shum filed a third amended complaint.

On April 27, 2004, the Court issued an Order as to the third amended complaint denying Defendants' summary judgment motions, recognizing that all of Shum's state law causes of action were primarily based on the unresolved allegation that Verdiell was not the sole true inventor of the patented technology. After a hearing on the matter, the Court decided to bifurcate the inventorship issue from the other claims of the complaint, and ordered that the § 256 trial should proceed first.

A bench trial, at which Shum contended that there should be a correction of inventorship as to multiple claims of the seven patents, began on January 10, 2005 and concluded on January 24, 2005. An order setting forth the Court's findings of fact and conclusions of law was issued on June 21, 2005. The Court concluded that Shum did not meet his burden to show that he was the inventor or co-inventor of any of the patent claims at issue and denied any correction of inventorship.

On January 12, 2006, the Court issued an Order as to a fourth amended complaint granting Defendants' summary judgment motions, concluding inter alia that, in light of the Court's findings that Shum was not an inventor of any of the claims of the patents at issue, a jury could not reasonably find for Shum on any of the state law causes of action.

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Shum appealed, and on November 19, 2007, the United States Court of Appeals for the Federal Circuit reversed the inventorship ruling of June 21, 2005 as well as the January 12, 2006, summary judgment ruling. The Federal Circuit held that, because the issue of inventorship was integral to the factual basis of the state law claims, it had to be decided by a jury pursuant to the Seventh Amendment. The Court of Appeals additionally reversed the Court's March 25, 2003, dismissal of Shum's unjust enrichment claim, holding that under California law the unjust enrichment claim constituted a separate cause of action, not duplicative of the other causes of action. The relevant previous orders were vacated and the case was remanded to this Court.

Jury trial, pursuant to the mandate of the Federal Circuit, is currently scheduled for November 3, 2008. On April 4, 2008, Defendants moved for summary judgment on all the above-listed claims.

II. LEGAL STANDARD*A. Summary Judgment*

The Federal Rules of Civil Procedure provide for summary adjudication when "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(e).

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Procedural matters not unique to patent law are decided by applying the law of the relevant regional circuit. *See Transmatic, Inc. v. Gulton Indus., Inc.*, 53 F.3d 1270, 1278 (Fed. Cir. 1995).

In a motion for summary judgment, initially it is the moving party's burden to establish that there is "no genuine issue of material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56; *British Airways Bd. v. Boeing Co.*, 585 F.2d 946, 951 (9th Cir. 1978). Subsequently, "[i]f the party moving for summary judgment meets its initial burden of identifying for the court those portions of the materials on file that it believes demonstrate the absence of any genuine issues of material fact," the burden of production then shifts so that "the non-moving party must set forth, by affidavit or as otherwise provided in Rule 56, 'specific facts showing that there is a genuine issue for trial.'" *T.W. Elec. Serv., Inc. v. Pac. Elec. Contractors Ass'n*, 809 F.2d 626, 630 (9th Cir. 1987) (citing *Celotex Corp. v. Catrett*, 477 U.S. 317 (1986)); *Kaiser Cement Corp. v. Fischbach & Moore, Inc.*, 793 F.2d 1100, 1103-04 (9th Cir. 1986).

Under Rule 56(f), where further discovery is necessary to enable a party to present evidence necessary to meet that party's burden, the court may defer ruling on the motion until such evidence has been obtained and presented to the Court.

Where the "clear and convincing" evidence requirement applies, the trial judge's summary judgment inquiry as to whether a genuine issue exists will be whether the

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evidence presented is such that a jury applying that evidentiary standard could reasonably find for either the plaintiff or the defendant. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

A court is generally precluded from reconsidering an issue previously decided by the same court, or a higher court in the identical case. *Securities Investor Prot. Corp. v. Vigman*, 74 F.3d 932, 937 (9th Cir. 1996). For the law of the case doctrine to apply, the issue in question must have been decided explicitly or by necessary implication in the previous disposition. *Id.* However, a party cannot revisit theories that it raises but abandons, and by the same token, a party cannot offer up successively different legal or factual theories that could have been presented in a prior request for review. *Id.*

B. Breach of Fiduciary Duty

Before a person can be found to owe a fiduciary duty to another, the factual circumstances attendant to their relationship must show that he knowingly undertook to act on behalf and for the benefit of the other person, or that the relationship itself is one which imposes that undertaking as a matter of law, such as guardian and ward, trustee and beneficiary, principal and agent, or attorney and client. *Comm. on Children's Television, Inc. v. General Foods Corp.*, 35 Cal. 3d 197, 221 (1983); *Richelle L. v. Roman Catholic Archbishop*, 106 Cal. App. 4th 257, 271 (2003).

In numerous cases California courts have rejected attempts to extend fiduciary obligations to relationships

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where the imposition of such an affirmative duty is deemed to be unwarranted. For instance, no fiduciary relationship was found to exist as between the following: (1) an attorney and his co-counsel under the theory that the former's malpractice in the handling of a mutual client's case caused damage to co-counsel in the loss of fees; (2) one shareholder and another shareholder by virtue of the fact that they were former partners in an entity that was later incorporated; (3) an unmarried cohabitant and his cohabitant concerning the operation of the former's business; (4) a movie distributor and movie producers under a distribution contract; (5) a homeowner's association and the buyer of an individual unit (with respect to disclosure of known construction defects); (6) a trade union and a union member (apart from the union's duty of fair representation); (7) a bank and its borrowers; (8) a corporation and its bondholders; (9) a clearing broker and an investment broker's customer; (10) an insurer and its insured; and (11) a manufacturer and an authorized dealer. *Oakland Raiders v. Nat'l Football League*, 131 Cal. App. 4th 621, 633 (2005) (internal case citations omitted).

Unless a fiduciary relationship exists, there can be no breach of fiduciary duty. *See, e.g., id.* at 634. Under California law, equal shareholders in a corporation do not owe one another a fiduciary duty merely by virtue of that relationship. *Persson v. Smart Inventions, Inc.*, 125 Cal. App. 4th 1141, 1156-59 (2005). This is the case even if the equal shareholders also serve as directors and officers of the corporation. *Id.* at 1147.

*Appendix C**C. Fraudulent Concealment*

Fraudulent concealment is “[t]he suppression of a fact, by one who is bound to disclose it, or who gives information of other facts which are likely to mislead by want of communication of that fact.” Cal. Civ. Code § 1710(3). A duty to disclose normally arises only where there exists a fiduciary or confidential relationship between the parties or where other special circumstances require a disclosure. *Warner Constr. Corp. v. Los Angeles*, 2 Cal. 3d 285, 294 (1970).

D. Inventorship

A patent is invalid if more or less than the true inventors are named. *Jamesbury Corp. v. United States*, 518 F.2d 1384, 1395 (Ct. Cl. 1975). Because of the presumption that a patent is valid, under 35 U.S.C. § 282, there is a parallel presumption that the named inventors on a patent are the true and only inventors. As a result, a party seeking to change the existing inventorship has a burden to prove by clear and convincing evidence the existence of an inventorship contribution to any of the patent claims. *Bd. of Educ. v. Am. Bioscience, Inc.*, 333 F.3d 1330, 1337 (Fed. Cir. 2003).

To meet the clear and convincing burden of proof, alleged co-inventors must prove their contribution to the conception with more than their own testimony respecting the facts surrounding a claim of inventorship. *Price v. Symsek*, 988 F.2d 1187, 1194 (Fed. Cir. 1993). Relevant corroborating evidence generally takes the form of

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physical evidence, or oral testimony of someone other than the alleged inventor. *Trovan, Ltd. v. Sokymat SA, Irori*, 299 F.3d 1292, 1302-03 (Fed. Cir. 2002).

E. Unjust Enrichment

Under California law, unjust enrichment can be the basis of a right to restitution or quasi-contractual recovery. *Cal. Med. Ass'n v. Aetna U.S. Healthcare of Cal.*, 94 Cal. App. 4th 151, 171 n.23 (2001). Where one obtains a benefit which he may not justly retain, he is unjustly enriched. *Id.* The quasi-contract, or contract “implied in law,” is an obligation created by the law without regard to the intention of the parties, and is designed to restore the aggrieved party to his former position by return of the thing or its equivalent in money. *Id.* However, the mere fact that a person obtains a benefit from another is not of itself sufficient to require that person to make restitution therefor. *Id.* (citing 1 Witkin, Summary of Cal. Law (9th ed. 1987) Contracts, § 91, ¶¶ 122-23). Thus, even when a person has received a benefit from another, he is required to make restitution only if the circumstances of its receipt or retention are such that, as between the two persons, it is unjust for him to retain it. *Id.* (citing *Ghirardo v. Antonioli*, 14 Cal. 4th 39, 51 (1996)). As a matter of law, a quasi-contract action for unjust enrichment does not lie where an express binding agreement exists and defines the parties’ rights. *Id.* at 172.

F. Fraud

Under California law, the elements of fraud are the following: (1) a misrepresentation (false representation,

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concealment, or nondisclosure) of a material fact, (2) made with knowledge of its falsity, (3) with intent to defraud, (4) justifiable reliance upon the misrepresentation, and (5) damage resulting from that justifiable reliance. Cal. Civ. Code § 1709; *see also Stansfield v. Starkey*, 220 Cal. App. 3d 59, 72-73 (1990); *Robinson Helicopter Co., Inc. v. Dana Corp.*, 34 Cal. 4th 979, 990 (2004).

G. Breach of Contract

Under California law, a contract must be interpreted to give effect to the mutual intention of the parties at the time of entering the contract. Cal. Civ. Code § 1636. In order to ascertain intention, the language of a contract governs its interpretation, if the language is clear and explicit and does not involve an absurdity. Cal. Civ. Code § 1638. When a contract has been reduced to writing, the intention of the parties is to be ascertained from the writing alone. Cal. Civ. Code § 1639. The words of a contract are to be understood in their ordinary and popular sense. Cal. Civ. Code § 1644.

Extrinsic evidence may be admitted if it serves to prove a meaning to which the contract is reasonably susceptible. *Powers v. Dickson, Carlson & Campillo*, 54 Cal. App. 4th 1102, 1111 (1997). If the court decides, after considering the extrinsic evidence, that the language of the contract is reasonably susceptible to the interpretation urged on the basis of that evidence, the evidence is admitted as evidence to aid in interpreting the contract. *Id.* Thus, “[t]he test of admissibility of extrinsic evidence to explain the meaning of a written instrument is not whether it appears to the court to be plain and unambiguous on

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its face, but whether the offered evidence is relevant to prove a meaning to which the language of the instrument is reasonably susceptible.” *Pac. Gas & Elec. Co. v. G. W. Thomas Drayage & Rigging Co. Inc.*, 69 Cal. 2d 33, 37 (1968).

III. SUMMARY JUDGMENT MOTION

Because the Federal Circuit vacated both the 2005 § 256 bench trial and the 2006 summary judgment order, the case is essentially reset to its status in April of 2004, when the Court denied summary judgment and bifurcated the § 256 cause of action. Given this state of the record, Shum contends that any summary judgment motion at this time is improper as it is simply a reconsideration of an existing summary judgment order without establishing the required grounds for such a reconsideration. The Court does not agree. Some matters have never been considered – for example, the unjust enrichment claim has been reinstated without ever being part of a summary judgment proceeding. Some matters have been vacated although they have always been separate from inventorship issues – for example, the question of any fiduciary relationship between Shum and Verdiell. In any event, the Court believes that given the history of the case a full pre-trial review by way of a summary judgment hearing is warranted.

A. Breach of Fiduciary Duty

In its order of March 25, 2003, the Court addressed the issue of Shum’s standing to sue for a breach of fiduciary

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duty. The Court concluded that “the alleged wrong is personal and exclusive” to Shum as the sole stockholder (other than Veridell) of Radiance, to whom Verdiell owed multiple duties as its president. On that basis, the Court held that Shum had standing and denied Verdiell’s motion to dismiss at that pleading stage.

Subsequent to that order, the Court of Appeal of California issued its decision in *Persson v. Smart Inventions, Inc.*, 125 Cal. App. 4th 1141 (2005). In *Persson*, the partners, Persson and Nokes, in the business of selling consumer products, incorporated their business with both of them as fifty percent shareholders, directors, and officers. *Id.* at 1147. After some success, their business fell off as well as their personal relationship, and they both hired lawyers to assist them in terminating their relationship. *Id.* at 1147-48. Nokes proceeded to buy out Persson and remained in business. *Id.* at 1149. The day the buyout was executed Nokes began an advertising campaign for a new product which he had never disclosed to Persson, even though he had represented to Persson that he would “paint” him a true picture of the state of the company at the time the buyout was being considered. *Id.* at 1148-49. Nokes made millions on the new product and Persson sued him for fraud and breach of fiduciary duty. *Id.* at 1149-50. Nokes was found liable for both at trial and awarded damages. *Id.* at 1150-51. The trial court found that Nokes owed Persson a fiduciary duty on two theories: (1) there was still a de facto partnership, and (2) Nokes had voluntarily assumed such a duty in connection with the purchase of Persson’s shares. *Id.* at 1151. The California appellate court found that as a matter of law

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neither ground supported a finding of the existence of a fiduciary duty. *Id.* at 1156. The court then reversed the fiduciary duty verdict and affirmed the fraud verdict. *Id.* at 1178.

The appellate court held that partners do owe fiduciary duties to one another, but after incorporation they have the regular obligations of shareholders, not of partners, as there is no fiduciary duty between them at that time. *See id.* at 1159. The appellate court further held that although a fiduciary relationship may not exist based upon the legal relationship of the partners, one may exist based on the factual circumstances of their relationship. *Id.* at 1159-62. California recognizes that reposing trust and confidence in another who is cognizant of that fact may support a confidential relationship, but that is not the same as a fiduciary relationship. *Id.* at 1160-61. The court stated that in order to find a fiduciary relationship the “essential elements” are: “1) The vulnerability of one party to the other which 2) results in the empowerment of the stronger party by the weaker which 3) empowerment has been solicited or accepted by the stronger party and 4) prevents the weaker party from effectively protecting itself.” *Id.* at 1161.

The *Persson* court also recognized that the existence of a confidential relationship generating a fiduciary duty is a question of fact, but that there was no evidence of the “necessary predicate” of vulnerability and reversed the trial court finding that a fiduciary relationship existed. *Id.* at 1161-62. In its January 12, 2006 order, this Court analyzed the *Persson* decision and found: that

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as to the Shum-Verdiell dissolution, the facts were not distinguishable from those in *Persson*; that the evidence in this case does not establish that Shum was vulnerable or incapacitated; that Verdiell owed no fiduciary duty to Shum; and granted summary judgment to Verdiell. This judgment was vacated and remanded by the Federal Circuit, but that reversal was based on jury trial Seventh Amendment grounds, and there was no discussion of the fiduciary duty issue, which is clearly independent of the Seventh Amendment issue. In these circumstances it may be contended that this matter has already been resolved, but this Court has decided that all the summary judgment issues should again be considered.

Shum contends that the argument by Verdiell, that as a matter of law he did not owe Shum a fiduciary duty, has been rejected by a recent decision of the California Supreme Court. Shum argues that *City of Hope National Medical Center v. Genentech, Inc.*, 43 Cal. 4th 375 (2008) stands for the proposition that whether a fiduciary duty arose in an agreement to commercialize intellectual property was a question of fact, with the result that the issue of fiduciary duty in this case should be a question of fact to be submitted to the jury. City of Hope had an agreement with Genentech entrusting their intellectual property in certain inventions to be developed, patented, and marketed by Genentech in return for royalties. *City of Hope*, 43 Cal. 4th at 380-85. City of Hope sued Genentech on the theory that Genentech owed them a fiduciary duty and breached it. *Id.* at 385. A jury agreed with City of Hope and awarded them compensatory damages and \$200 million in punitive damages. *Id.* The jury had been

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instructed that a fiduciary duty is created when a party entrusts its secret ideas to another to be developed in return for royalties. *Id.* at 387. The Supreme Court held that this instruction was erroneous as those facts do not necessarily create a fiduciary duty. As that was the only thesis relied upon by City of Hope to create a fiduciary duty, the Supreme Court found that the fiduciary duty and damage awards based upon that verdict must be set aside. *Id.* at 392. Any suggestion by Shum that *City of Hope* rejects *Persson* in any way is not correct. Actually, *City of Hope* cites *Persson* as existing California precedent consistent with its decision in *City of Hope*. *Id.* at 388. In addition, any suggestion by Shum that either *Persson* or *City of Hope* hold that the issue of fiduciary duty must invariably be submitted to a jury is also incorrect. In both of those cases jury verdicts finding fiduciary duty were set aside as a matter of law without remanding them for jury consideration. *See id.* at 399; *Persson*, 125 Cal. App. 4th at 1178.

Upon its further consideration of the undisputed facts and the present state of California law, the Court again finds this is a case where there is no showing that the legal relationship of the parties creates a fiduciary duty, and that it is also a case where there is no showing that the factual relationship of the parties creates such a duty. The Court finds that this case falls squarely within the California law stated in *Persson*, and that the California Supreme Court accepts the continued vitality of that law in its *City of Hope* decision. Verdiell does not owe a fiduciary duty to Shum as the evidence proffered by Shum is insufficient to permit a factual finding of vulnerability

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or incapacity on the part of Shum, which is required by California law in order to create a factually based fiduciary duty.

Shum also claims that his fiduciary duty claim can be supported by the fact that Verdiell breached his duty to Radiance, the corporation in which he was an officer and director. In its March 25, 2003 order, the Court denied Verdiell's motion to dismiss this claim, holding that Shum's claim was for an injury personal and exclusive to him, giving him standing to sue. This order had to do with the sufficiency of the pleadings in the case, and had nothing to do with the sufficiency of the evidence to support the existence of a fiduciary duty or the breach of any such duty. As already stated, Shum and Verdiell were the only officers, directors, and owners of Radiance during its existence. Radiance was dissolved when the Plan of Liquidation was executed on January 5, 1998. Verdiell's subsequent conduct of the prosecution of the seven patents before the PTO was done at a time Radiance did not exist. Shum complains of Verdiell's plans and activities as to LightLogic which took place before Radiance was dissolved. But plans and activities to dissolve and compete with an existing business, even though undertaken by an officer or director of the business, do not, of themselves, constitute a breach of any fiduciary duty the officer or director may owe to that business. It may be noted that it appears that Shum also engaged in similar undisclosed plans and activities to form a competing business of his own, which he called Luminance, before Radiance was dissolved.

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In sum, the Court finds that on the circumstances in this case that Verdiell does not owe any fiduciary duty to Shum, or that Verdiell has breached any fiduciary duty to Radiance, and that summary judgment should be granted to Verdiell on this claim.

B. Fraudulent Concealment

Shum supports this cause of action by his contention that Verdiell had a duty to disclose to Shum, as a stockholder in Radiance, for whom Verdiell was President, that he was forming LightLogic, a competitor corporation. Shum's claim is based on the fact that Verdiell did not disclose his actions in competition with Radiance, despite his duty, and Shum was consequently defrauded because he relied, to his detriment, on Verdiell's non-disclosure.

The Court finds that Verdiell had no duty to disclose any potentially harmful facts to Shum. The undisputed facts support the conclusion that Verdiell had no fiduciary duty, as discussed above, nor any duty created by the POL, nor any duty, in the arms-length negotiations in which the parties were engaged at the time, to notify Shum of Verdiell's intent to compete. Without a duty to disclose the detrimental facts at issue, Shum cannot sustain a cause of action for fraudulent concealment. Under the circumstances, the Court must grant Verdiell's motion for summary judgment on Shum's cause of action for fraudulent concealment.

*Appendix C**C. Inventorship*

Each of the seven patents at issue in this case has multiple claims and has been issued to Defendant Verdiell as the sole inventor. Each claim is considered to be a separate invention. Shum contends that he is “at least a joint inventor” of these patents. The “at least” language leaves open the possibility that Shum is contending that he is the sole inventor of these patents, which would require him to prove that Verdiell is *not* the inventor of the patents issued to him. The Court will visit this issue after first considering the joint inventorship issue.

To be a joint inventor, one must “(1) contribute in some significant manner to the conception or reduction to practice of the invention, (2) make a contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention, and (3) do more than merely explain to the real inventors well-known concepts and/or the current state of the art.” *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1351 (Fed. Cir. 1998). The testimony of one who claims to be a joint inventor is not, of itself, sufficient to prove any such fact – it must be corroborated. *Price*, 988 F.2d at 1194. In order to prove such a fact, the proponent’s burden is to meet the standard of proof of clear and convincing evidence. *Am. Bioscience*, 333 F.3d at 1337. In order to meet the challenge of summary judgment the proponent of joint inventorship status must identify relevant, admissible evidence sufficient to meet that burden. *See* Fed. R. Civ. P. 56(e)(1). It is important, however, that a Court in its assessment of any such identified evidence in relation to

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a summary judgment motion is not permitted to make any credibility or weight of evidence determinations. *See Liberty Lobby*, 477 U.S. at 255.

The question of whether or not any person has made an inventive contribution to any patent claim is a mixed question of fact and law. Shum has identified an evidentiary mix of his own testimony and asserted corroboration in the form of Lab notebooks, drawings (CAD and otherwise), admissions of Verdiell, and other materials which he contends are sufficient to establish his inventive contribution to claims of the patents. Defendant contends that this mix, for various reasons, is not sufficient to clear the threshold hurdle of Rule 56 of the Federal Civil Rules, and permit the case to be presented to a fact finder. The Court must disagree. Defendant's argument necessarily requires the Court to make prohibited credibility and weight determinations. The Court made such determinations in the § 256 bench trial, where it was obligated to make such determinations in order to apply the law and find the facts, but the Court cannot make such determinations in deciding this summary judgment motion. In point of fact, the essential rationale for the Federal Circuit's decision to set aside the § 256 trial was to require that these questions must be decided by a jury. Accordingly, the Court will deny Defendant's motion, which would prevent Shum from presenting his joint inventorship claims to a jury.

The question of sole inventorship, however, requires Shum to prove that Verdiell was not "at least" a joint inventor of that invention. It appears that this issue may

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well be raised at a trial of this case. However, the issue has not been briefed or argued by the parties, and it is not ripe for any summary judgment decision by this Court and must be treated as any other factual trial issue.

D. Unjust Enrichment

Under California law, the elements of the tort of unjust enrichment are, (1) receipt of a benefit and (2) unjust retention of the benefit at the expense of another. *Lectrodryer v. SeoulBank*, 77 Cal. App. 4th 723, 726 (2000). Shum claims that when Verdiell was paid by Intel for its June 2001 purchase of LightLogic and the rights to the seven patents, he obtained a benefit based on the patent rights of Shum and that retention of that benefit is unjust.

Under California law a claim for unjust enrichment will not lie if there is an express agreement between the parties which covers the “same subject matter, existing at the same time.” *Wal-Noon Corp. v. Hill*, 45 Cal. App. 3d 605, 613-14 (1975). Defendants claim that the POL accepted by the parties in this case is such an agreement and that the unjust enrichment claim can not be sustained. Defendants point out that the POL permits each party to exploit the Radiance intellectual property by obtaining patents on the technology. Shum responds that although that may be true, the POL does not permit Verdiell to unlawfully obtain a patent by omitting the “true inventor,” which in turn means that the unjust enrichment claim and the POL do not cover the same subject matter. It appears to the Court that Shum has the better of this argument. It

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is at least clear that the POL does not authorize Verdiell to obtain a patent on optoelectronic technology inventions that were invented by Shum and not by Verdiell.

Defendants also argue that there is no unjust enrichment as the POL makes Shum and Verdiell “co-owners” of the Radiance Technology, and that means that Shum retains all of his economically valuable rights as a patentee. This argument has essentially the same flaw as the “same subject matter” argument already discussed. The Court does not believe that Defendant has established that the rights of a “co-owner” under the POL are co-extensive with the established rights of a patentee. The fact that the Federal Circuit restored this claim after it had been dismissed by this Court does not mean that it is not subject to summary judgment proceedings, however, for the reasons stated, it does not appear that a grant of summary judgment is warranted as to this claim.

E. Fraud

The Federal Circuit decision has essentially re-set this case to its status immediately before the inventorship trial. At that time the Court had considered and denied Defendant’s motion for summary judgment on Shum’s fraud claims in its April 2004 order. The allegations of misrepresentations and material omissions that Shum relies upon now are essentially the same as he relied upon in 2004. Similarly, the evidentiary support he relies upon now is essentially the same as that considered by this Court in 2004. There is one significant difference in the fact that this Court in its present order has decided that

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Verdiell does not owe any fiduciary duty to Shum. That decision applies, of course, to the fraud claim asserted by Shum, and he cannot rely upon the assertion of any such duty to support his fraud claim. However, that circumstance does not resolve the fraud claim as there are remaining allegations and evidentiary support which do not depend upon the existence of a fiduciary duty.

Fraud cases by their nature require the fact finder to determine the state of mind of both the asserted victim and the accused offender. Does the offender have the necessary scienter and intent to defraud? Does the victim act in reliance on the alleged misrepresentations? Some questions of fact are more difficult than others, and a state of mind as a question of fact, generally falls on the higher end of difficulty. Given the standards for summary judgment, it is frequently true that these cases are not amenable to resolution by summary judgment. As it was in 2004, this is the finding of the Court at this time. Summary judgment on the fraud cause of action is denied.

F. Breach of Contract

In its April 2004 order, this Court denied Defendant's motion for summary judgment on this cause of action. In the course of pre-trial consideration of the contract, the Court has made several rulings on the meaning of terms of the contract. The Court has not been presented with any new evidence or argument that would lead it to change any of these rulings – they remain as law of the case. Nothing in these rulings, however, serves to resolve the summary judgment issue. It appears to the Court that, as was the

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case in April 2004, inasmuch as the proffered evidence and the legal arguments are essentially the same now as they were then, the same ruling is called for – that summary judgment is denied.

Defendants do offer one argument that was not specifically considered in 2004. Defendants argue that in addition to the issue of breach, there is insufficient evidence to permit the jury to consider the issue of damages, if liability is established. Here again, the Court believes that the prohibition on credibility and weight findings by the Court at this summary judgment stage requires the Court to deny the motion.

IV. CONCLUSION

For the foregoing reasons, the Court GRANTS the motion for summary judgment in part, and DENIES it in part. As to each cause of action the Court finds as follows:

Breach of Fiduciary Duty - Summary Judgment is GRANTED.

Fraudulent Concealment - Summary Judgment is GRANTED.

Inventorship - Summary Judgment is DENIED.

Unjust Enrichment - Summary Judgment is DENIED.

Fraud - Summary Judgment is DENIED.

Breach of Contract - Summary Judgment is DENIED.

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IT IS SO ORDERED

Dated: September 26, 2008

/s/ _____
D. Lowell Jensen
United States District Judge

**APPENDIX D — ORDER OF THE UNITED
STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF CALIFORNIA
FILED APRIL 29, 2009**

Frank T. Shum,

Plaintiff,

v.

Intel Corp., et al.,

Defendants.

No. C-02-3262-DLJ

ORDER

On February 20, 2009, the Court heard oral argument on Defendants' renewed motions for judgment as a matter of law (JMOL). Having considered the papers submitted, the arguments of counsel, and the applicable law, the Court hereby GRANTS Defendants' renewed motion for JMOL as to Shum's state law claims, and GRANTS in part and DENIES in part Defendants' renewed motion for JMOL as to inventorship.

I. BACKGROUND

A. Factual Background

Plaintiff Frank Shum (Shum) and defendant Jean-Marc Verdiell (Verdiell) are optical engineers. They

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met in 1994 when both worked at a company called SDL Technologies (SDL).

After leaving SDL, Shum and Verdiell incorporated Radiance Design, Inc. (Radiance) on April 22, 1999, intending to work in the field of optoelectronics. Shum and Verdiell were the sole and equal shareholders, with Verdiell as President and Treasurer and Shum as Vice President and Secretary. On the day of incorporation, a patent application related to optoelectronic technology was filed on behalf of Radiance. Marek Alboszta (Alboszta), a patent agent, had been hired by Radiance and prepared this patent application, which named Shum as the sole inventor.

While the patent application filed in April was pending, Verdiell informed Alboszta that he was also an inventor of the subject matter covered by the patent. Shum states that Alboszta informed him of this new information from Verdiell and stated, to Shum, that if Verdiell is an inventor, the application must be withdrawn. Verdiell also told Shum that the patent application would have to be withdrawn. Subsequently, Radiance withdrew the pending application on November 17, 1997.

At about this time, the relationship between Shum and Verdiell deteriorated. Both Shum and Verdiell hired individual counsel to negotiate the dissolution of Radiance and a Plan of Liquidation (POL) was drafted. The POL was agreed upon and executed on January 5, 1998. Radiance was dissolved as of that date.

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After Radiance was dissolved, Shum formed a new company called Luminance in order to continue developing the technology that he and Verdiell worked on at Radiance. Shum failed to obtain financing for Luminance, however, and he abandoned the company after several months. Thereafter, Shum accepted employment as an optical engineer at a telecommunications company named Ditech.

The day after the POL took effect, Albostza filed a patent application on Verdiell's behalf which related to optoelectronic technology covering the same subject matter as the withdrawn patent application. This patent application named Verdiell as the sole inventor. The patent application was assigned to LightLogic, a company newly formed by Verdiell. Verdiell had formed LightLogic, without notice to Shum, three days before the original patent application was withdrawn in November 1997. Based on this application, United States Patent No. 5,977,567 ('567) was ultimately issued on November 2, 1999, listing Verdiell as the sole inventor.

Over the next several years, LightLogic applied for and obtained six additional patents: United States Patent Nos. 6,376,268 ('268); 6,207,950 ('950); 6,586,726 ('6726); 6,227,724 ('724); 6,585,427 ('427); and 6,252,726 ('2726). All of these patents named Verdiell as the sole inventor except the '427 patent, which named Verdiell as well as four co-inventors. None of the patents listed Shum as an inventor.

These seven patents cover three separate areas of optoelectronic technology. The first area can be referred to as "Dual Enclosure" technology and involves only a

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single patent -- the '2726 patent. This invention describes an optoelectronic package which is comprised of two separate enclosures designed to regulate the temperature within the package in a cost-efficient manner. The second technology group is referred to by the parties as "Direct Bonded Copper" (DBC) or "Step" technology and two patents, '567 and '268, are involved. These patents disclose an optoelectronic package consisting of a substrate made of an insulating ceramic material, and a layer of copper that is bonded to this substrate. The third technology group is called "Flexure" technology and four patents, '950, '724, '427, and '6726, are involved. These inventions address the problem of precisely aligning a laser diode and an optical fiber during an automated fiber-optic assembly process, and of keeping the two components aligned during use.

After LightLogic was formed, Verdiell undertook extensive efforts to develop and market a device known as a transponder. A transponder is an optoelectronic device that takes in electrical signals and converts them into optical signals, enabling telecommunications providers to process a large volume of data at a very high speed. Transponders contain numerous electrical and optical components, including an optical receiver, a high speed amplifier, a high speed demultiplexer, a multiplexer driver, and an optical transmitter.

In order to develop and market a transponder, Verdiell hired a team of managers and engineers to work at LightLogic. After three rounds of venture capital investment and approximately three years of

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effort, LightLogic began the manufacture and sale of transponders in 2000. All of LightLogic's transponders at that time used off-the-shelf optical components rather than any optical technology based on Verdiell's patents.

In June 2001, Intel acquired LightLogic, its physical assets and the services of its personnel, along with the rights to LightLogic's transponder, the '567 patent, and the six additional patents issued to LightLogic, for \$409 million in shares of its stock. LightLogic distributed these shares directly to its shareholders. Verdiell received \$58.4 million from the transaction. After Intel acquired LightLogic, Intel began manufacturing transponders which contained different optoelectronic components, including the patented flexure, which had been developed at Radiance.

Shum contends that he is an inventor of the technology claimed by the seven patents issued to Verdiell.

B. Procedural History

In 2001, Shum filed his original complaint in this action in California state court against Intel, Verdiell, Alboszta, Lumen (Alboszta's patent firm), and John Gorman (Verdiell's attorney during the dissolution of Radiance). The complaint contained numerous state causes of action, essentially based on claims of fraud.

On July 9, 2002, Intel removed the case to federal district court.

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On December 19, 2002, Shum filed a second amended complaint in this Court. This complaint essentially repleaded the original state causes of action and added a federal cause of action for correction of patent inventorship pursuant to 35 U.S.C. § 256. The second amended complaint also added LightLogic as a defendant.

On January 21, 2003, Intel and Verdiell filed a motion to dismiss the second amended complaint. This Court entered an order on March 25, 2003, granting in part and denying in part Defendants' motion to dismiss. Among the dismissed claims was a claim under California state law for unjust enrichment. The Court dismissed this claim on the basis that it was duplicative of the causes of action for fraud.

On April 27, 2004, the Court issued an order as to the third amended complaint denying Defendants' summary judgment motions, recognizing that all of Shum's state law causes of action were primarily based on the unresolved allegation that Verdiell was not the sole true inventor of the patented technology. After a hearing on the matter, the Court decided to bifurcate the inventorship issues from the other claims of the complaint, and ordered that the § 256 inventorship trial should proceed first.

In addition, the Court interpreted two provisions of the POL. First, the Court interpreted the section entitled "Business Activities of Officers and Directors." This provision states:

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Shum and Verdiell acknowledge and agree that, after the approval of this Plan, each of them shall be entitled, without any liability or duty to account to [Radiance] or to the other, to pursue any and all such other business activities as they shall desire, even if such activities are in competition with the business of [Radiance] and even if they take, or attempt to take, a business opportunity that [Radiance] could have itself pursued.

The Court interpreted this provision to eliminate any liability between Shum and Verdiell based upon the conduct of “business activities” by Shum or Verdiell in any commercial exploitation of the Radiance technologies, and to allow them to compete with each other without notice to each other or any accounting as to profits. The Court also interpreted this provision to eliminate any liability between Shum and Verdiell based solely on either party obtaining a lawful patent related to the intellectual property developed at Radiance.

Second, the Court interpreted the section of the POL entitled “Distribution of Property.” Subsection (iii) of that section provides, in pertinent part:

Verdiell and Shum shall have equal rights to independently exploit the intellectual property developed by [Radiance].

The Court interpreted this provision to mean that Shum and Verdiell were entitled to lawfully patent any of their

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own inventions contained in the intellectual property which had previously been the property of Radiance.

From January 10, 2005 to January 24, 2005, the Court conducted a § 256 bench trial, at which Shum contended that there should be a correction of inventorship as to multiple claims of each of the seven patents. An order setting forth the Court's findings of fact and conclusions of law was issued on June 21, 2005. The Court concluded that Shum did not meet his burden to show that he was the inventor or co-inventor of any of the patent claims at issue and denied any correction of inventorship.

On January 12, 2006, the Court issued an order as to a fourth amended complaint granting Defendants' summary judgment motions, concluding inter alia that, in light of the Court's findings that Shum was not an inventor of any of the claims of the patents at issue, a jury could not reasonably find for Shum on any of the state law causes of action.

Shum appealed, and on November 19, 2007, the United States Court of Appeals for the Federal Circuit reversed the inventorship ruling of June 21, 2005 as well as the January 12, 2006, summary judgment ruling. The Federal Circuit held that, because the issue of inventorship was integral to, and "inextricably intertwined" with, the factual basis of the state law claims, it had to be first presented to and decided by a jury pursuant to the Seventh Amendment. The Court of Appeals additionally reversed the Court's March 25, 2003, dismissal of Shum's unjust enrichment claim, holding that under California law

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the unjust enrichment claim constituted a separate cause of action, not duplicative of the other causes of action. The relevant previous orders were vacated and the case was remanded to this Court.

On September 26, 2008, the Court issued a second order as to Shum's fourth amended complaint, this time granting Defendants' motion for summary judgment in part and denying it in part. The Court ruled, among other things, that Verdiell did not owe any fiduciary duty to Shum, and as a result, that no liability could arise in this case based on the fact that Verdiell did not disclose something to Shum.

On November 13, 2008, pursuant to the mandate of the Federal Circuit, the Court empaneled a jury to hear Shum's claims for correction of inventorship, intentional misrepresentation, breach of contract, and unjust enrichment. The case was tried to the jury.

By the close of evidence, several new developments had altered the landscape of the case. First, Shum withdrew his claim for correction of inventorship as to the '2726 patent. Second, Shum abandoned any claim to sole inventorship of any of the six remaining patents, conceding, in effect, that Verdiell was at least a co-inventor of every patent-in-suit. Third, Shum disclaimed any basis for liability against Intel other than its status as LightLogic's successor-in-interest. Fourth, Shum specified which alleged misrepresentations were the basis of his intentional misrepresentation claim. According to Shum, Verdiell's alleged fraud arose solely out of Verdiell's and Alboszta's representations that the

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original step patent application was invalid and had to be withdrawn.

On December 22, 2008, the jury returned verdicts on some of Shum's claims and reported that it could not reach a verdict on the others. The jury was unable to reach a verdict on any of the state law claims. The Court declared a mistrial as to each of these claims.

The jury returned the following verdicts on inventorship claims:

- U.S. Patent No. 5,977,567: Shum is a co-inventor of six claims of the patent.
- U.S. Patent No. 6,376,268: Shum is a co-inventor of five claims of the patent.
- U.S. Patent No. 6,207,950: Shum is a co-inventor of four claims of the patent.
- U.S. Patent No. 6,586,726: Shum is a co-inventor of four claims of the patent.
- U.S. Patent No. 6,227,724: Shum is a co-inventor of four claims of the patent. The jury was deadlocked as to claim five of the patent and the Court declared a mistrial as to this claim.
- U.S. Patent No. 6,585,427: Shum was not a co-inventor of three claims of the patent. The jury deadlocked as to claim one of the patent and the Court declared a mistrial as to this claim.

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Following trial, Defendants filed the instant renewed motions for JMOL regarding Shum's state law and inventorship claims.

A more detailed description of the history of this case is contained in the previous orders of this Court.

C. Legal Standards**1. Judgment as a Matter of Law**

Federal Rule of Civil Procedure 50(a) provides:

If a party has been fully heard on an issue during a jury trial and the court finds that a reasonable jury would not have a legally sufficient evidentiary basis to find for the party on that issue, the court may: (A) resolve the issue against the party; and (B) grant a motion for judgment as a matter of law against the party on a claim or defense that, under the controlling law, can be maintained or defeated only with a favorable finding on that issue.

Rule 50(b), which provides for renewing a motion for judgment as a matter of law, states:

If the court does not grant a motion for judgment as a matter of law made under Rule 50(a), the court is considered to have submitted the action to the jury subject to the court's later deciding the legal questions raised by the motion. . . . In

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ruling on the renewed motion, the court may: (1) allow judgment on the verdict, if the jury returned a verdict; (2) order a new trial; or (3) direct the entry of judgment as a matter of law.

Where the jury has reached a verdict, the court must ask whether, construing the evidence in the light most favorable to the nonmoving party, the jury's verdict was supported by "substantial evidence." *Fisher v. City of San Jose*, 558 F.3d 1069, 1074 (9th Cir. 2009). "Substantial evidence" is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Id.*

Where the jury has not reached a verdict, the failure to reach a verdict "does not necessarily preclude a judgment as a matter of law." *Headwaters Forest Def. v. County of Humboldt*, 240 F.3d 1185, 1197 (9th Cir. 2000) (*vacated on other grounds by County of Humboldt v. Headwaters Forest Def.*, 534 U.S. 801 (2001)). "The test is whether the evidence, construed in the light most favorable to the nonmoving party, permits only one reasonable conclusion." *White v. Ford Motor Co.*, 312 F.3d 998, 1010 (9th Cir. 2002) (quotation omitted).

In evaluating the evidence presented at trial, the court must not substitute its own view of the evidence for that of the jury. *Fisher*, 558 F.3d at 1074. Nor may the court make credibility determinations or weigh the evidence. *Johnson v. Paradise Valley Unified Sch. Dist.*, 251 F.3d 1222, 1227 (9th Cir. 2001).

*Appendix D***2. Intentional Misrepresentation**

Under California law, the elements of intentional misrepresentation are as follows: (1) the defendant represented to the plaintiff that an important fact was true; (2) that representation was false; (3) the defendant knew that the representation was false when the defendant made it, or the defendant made the representation recklessly and without regard for its truth; (4) the defendant intended that the plaintiff rely on the representation; (5) the plaintiff reasonably relied on the representation; (6) the plaintiff was harmed; and (7) the plaintiff's reliance on the defendant's representation was a substantial factor in causing that harm to the plaintiff. *Manderville v. PCG & S Group, Inc.*, 146 Cal. App. 4th 1486, 1498 (2007).

3. Breach of Contract

In California, the elements of breach of contract are: (1) the contract; (2) plaintiff's performance or excuse for nonperformance; (3) defendant's breach; and (4) damage to plaintiff therefrom. *Wall Street Network, Ltd. v. New York Times Co.*, 164 Cal. App. 4th 1171, 1178 (2008).

4. Unjust Enrichment

Under California law, the elements of unjust enrichment are: (1) receipt of a benefit; and (2) the unjust retention of the benefit at the expense of another. *Peterson v. Cellco P'ship*, 164 Cal. App. 4th 1583, 1593 (2008). The mere fact that a person obtains a benefit from another is not of itself sufficient to require that person to make

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restitution therefor. *Cal. Med. Ass'n, Inc. v. Aetna U.S. Healthcare of Cal., Inc.*, 94 Cal. App. 4th 151, 171 n.23 (2001). Thus, even when a party has received a benefit from another, it is required to make restitution only if the circumstances of its receipt or retention are such that, as between the two parties, the retention of the benefit is unjust. *Id.* This requires wrongful conduct on the part of the party receiving the benefit. *See County of San Bernardino v. Walsh*, 158 Cal. App. 4th 533, 542-43 (2007). As a matter of law, an action for unjust enrichment does not lie where an express binding agreement exists and defines the parties' rights. *Cal. Med. Ass'n*, 94 Cal. App. 4th at 172.

5. Correction of Patent Inventorship

A patent is invalid if more or less than the true inventors are named. *Jamesbury Corp. v. United States*, 518 F.2d 1384, 1395 (Ct. Cl. 1975). Because a patent is presumed to be valid, there is a parallel presumption that the named inventors on a patent are the true and only inventors. *Univ. of Colo. Found., Inc. v. Am. Cyanamid Co.*, 342 F.3d 1298, 1308 (Fed. Cir. 2003). As a result, a party seeking to change the existing inventorship has a burden to prove by clear and convincing evidence the existence of an inventorship contribution to any of the patent claims. *Bd. of Educ. v. Am. Bioscience, Inc.*, 333 F.3d 1330, 1337 (Fed. Cir. 2003).

Conception is the “touchstone” of inventorship. *Am. Cyanamid*, 342 F.3d at 1308. To be a joint inventor, one must “(1) contribute in some significant manner to the

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conception or reduction to practice of the invention, (2) make a contribution to the claimed invention that is not insignificant in quality, when that contribution is measured against the dimension of the full invention, and (3) do more than merely explain to the real inventors well-known concepts and/or the current state of the art.” *Pannu v. Iolab Corp.*, 155 F.3d 1344, 1351 (Fed. Cir. 1998). A purported co-inventor does not satisfy this standard by contributing an element which is obvious or exists in the prior art. *Nartron Corp. v. Schukra U.S.A., Inc.*, 558 F.3d 1352, 1356-58 (Fed. Cir. 2009).

To meet the clear and convincing burden of proof, alleged co-inventors must prove their contribution to the conception with more than their own testimony respecting the facts surrounding a claim of inventorship. *Price v. Symsek*, 988 F.2d 1187, 1194 (Fed. Cir. 1993). Relevant corroborating evidence generally takes the form of physical evidence, or oral testimony of someone other than the alleged inventor. *Trovan, Ltd. v. Sokymat SA, Irori*, 299 F.3d 1292, 1302-03 (Fed. Cir. 2002).

The inventorship of a patent or patent application may be corrected to name another actual inventor if the omission of that unnamed inventor occurred without deceptive intent on the part of the unnamed inventor. See 35 U.S.C. §§ 256, 116. A patent is unenforceable and is invalid and uncorrectable if it was obtained with deceptive intent on the part of the applicant. See *PerSeptive Biosystems, Inc. v. Pharmacia Biotech, Inc.*, 225 F.3d 1315, 1322-23 (Fed. Cir. 2000).

II. DISCUSSION**A. Intentional Misrepresentation**

For the following reasons, Shum has failed as a matter of law to prove that Defendants committed the tort of intentional misrepresentation.

1. False Statement

First, Shum has not presented sufficient evidence to support a factual conclusion that Defendants made a false statement. Under the evidence presented in this case and the law of patent inventorship, Verdiell's and Alboszta's statements that the original step patent application was invalid and had to be withdrawn, are not shown to be false. When a patent application omits an actual co-inventor with deceptive intent on the part of the unnamed inventor, that application is invalid and must be withdrawn. *See* 35 U.S.C. § 116.

At the trial, Verdiell testified that his name was left off the original patent application because his work on the invention was done at Radiance while he was still employed by SDL, and that fact might cause problems as to ownership of the patent. There was no evidence at the trial to show that this state of mind did not exist.

Verdiell also testified at the trial that before the LightLogic patent application was filed following the dissolution of Radiance, he had gone over the original patent application and removed anything in the abandoned

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application that was based on Shum's work at Radiance. In this case, Shum does not dispute that Verdiell is an actual co-inventor of every patent-in-suit, which would include the subject matter of the '567 patent which had originally been part of the abandoned patent application. Once Verdiell notified Shum that he was a co-inventor, the patent application listing Shum as the sole inventor could not have remained in the hands of the PTO without deceptive intent on the part of Verdiell. Such deceptive intent on the part of the unnamed inventor, Verdiell, would have rendered the application invalid and uncorrectable under § 116. Accordingly, when Verdiell and Alboszta informed Shum that the patent application was invalid and had to be withdrawn, they were correct -- the statements were not false.¹

2. Reliance

Even assuming that Verdiell made a false statement, Shum has failed to present any evidence from which a reasonable juror could conclude that he relied on any such statement. Shum's only evidence of reliance is his testimony that, had he known Verdiell was preparing a

1. In his opposition brief, Shum asserts, for the first time, that there was an additional allegedly false statement by Verdiell: that Verdiell promised Shum he would re-file a patent application that listed both of them as inventors after the first application was withdrawn. There is a significant question as to whether there is evidence to support this assertion, but it is not necessary to review the evidence, as this statement cannot support a finding of intentional misrepresentation because it was not submitted to the jury and there was no request by Shum to do so. *See* Trial Tr. vol. 19, 4021:16-21, Dec. 17, 2008.

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sole inventor application, he would never have agreed to enter into the POL. *See* Trial Tr. vol. 3, 593:25-594:20, Nov. 18, 2008.

This testimony fails to establish reliance. A duty to disclose only arises between two parties if a fiduciary or confidential relationship exists between them, or if there are other special circumstances which would require a disclosure. *See Warner Constr. Corp. v. Los Angeles*, 2 Cal. 3d 285, 294 (1970). This Court has already ruled that Verdiell owed no such duty to Shum. *See* Sept. 26, 2008 Order at 14:23-20:11. Consistent with this ruling, the Court instructed the jury that liability for intentional misrepresentation could not be based on a non-disclosure by Verdiell. *See* Trial Tr. vol. 19, 4022:13-16, Dec. 17, 2008. Because Shum's purported reliance in this case is premised solely on the fact that Verdiell omitted to tell him about the sole inventor application, no reasonable juror could have concluded that Shum relied on such a failure to disclose.

Shum also contends that Verdiell's trial testimony establishes that his reliance was induced. Specifically, Shum concludes from Verdiell's testimony that Verdiell believed the abandonment of the original patent application was "not just a substantial factor in, but a necessary predicate to, entry into the POL." Shum's Opp. at 6:22-23. Shum appears to contend that if Verdiell held this belief, then Verdiell's statement that the application had to be withdrawn must have induced Shum to enter into the POL.

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This argument misconstrues the nature of causation. The relevant causation inquiry in this case pertains to Shum's motivations for entering into the POL. The inference Shum draws from Verdiell's testimony relates to Verdiell's state of mind, not Shum's. Absent any evidence establishing a causal connection between Verdiell's alleged misrepresentations and Shum's motivations for executing the POL, no reasonable juror could conclude that Verdiell fraudulently induced Shum to enter into the POL.

3. Harm

Finally, Shum has failed to present any evidence that he suffered legally cognizable harm as a result of Verdiell's alleged misrepresentation. Shum's theory of intentional misrepresentation damages is that after the POL was executed, Verdiell used the agreement to deprive Shum of his rights to the Radiance technology. Shum's damages expert, Paul Regan, valued Shum's loss attributable to this alleged fraud at \$29.2 million, or one-half the value of the Intel shares Verdiell acquired as a result of the Intel-LightLogic merger. *See* Trial Tr. vol. 12, 2529:7-2530:6, Dec. 4, 2008.

Under California law, Shum must have incurred actual monetary loss as a result of Defendants' alleged fraud. *See* Cal. Civ. Code § 3333; *Strebel v. Brenlar Invs., Inc.*, 135 Cal. App. 4th 740, 749 (2006). Shum has failed to present evidence of any such loss. Shum's theory of fraud damages rests on the conclusory assertion that, had he not been fraudulently induced into entering into the POL, he would now possess \$29.2 million. This assertion is based

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on several unfounded assumptions regarding what would have happened to Shum, Verdiell and Radiance, had the POL never been executed. Such assumptions include, for example, that Shum would have (1) been a co-participant in Radiance or LightLogic along with Verdiell; (2) obtained patents on the Radiance technologies; and (3) been an equal owner of the Intel shares distributed to Verdiell at the time of the sale. All of the evidence presented at trial, however, suggests the opposite. *See, e.g.*, Trial Tr. vol. 3, 607:7-25, Nov. 18, 2008 (Shum abandoned his own efforts to develop the Radiance intellectual property after Radiance dissolved); *id.* vol. 4, 810:10-814:24, Nov. 19, 2008 (the relationship between Verdiell and Shum had irrevocably deteriorated); *id.*, 826:17-831:19 (same).

Absent any evidence of actual loss, Shum's theory of fraud damages amounts to little more than an unjust enrichment claim. Unjust enrichment cannot serve as a basis for fraud damages. *See, e.g., Ward v. Taggart*, 51 Cal. 2d 736, 741-42 (1959). Shum has failed as a matter of law to demonstrate that he suffered direct harm as a result of Verdiell's alleged intentional misrepresentation.

B. Breach of Contract

Shum has also failed as a matter of law to prove the elements of breach of contract.

1. Breach

First, Shum has presented no evidence that Verdiell breached the POL. Under the Court's interpretation of the

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POL, Verdiell is only liable to Shum for breach of contract if he obtained a patent for the Radiance technology which is not lawful. *See* Trial Tr. vol. 19, 4025:9-4026:2, Dec. 17, 2008.

Shum contends that Verdiell engaged in unlawful conduct by acquiring patents which omitted Shum as a co-inventor. As noted, the omission of a co-inventor only amounts to unlawful conduct if the patent is obtained by deceptively concealing the existence of the omitted co-inventor. *See PerSeptive*, 225 F.3d at 1322-23. As already noted, Shum has conceded that Verdiell is in fact an inventor of each of the seven patents at issue in this case. As a result, the fact that Verdiell has obtained these patents in his own name is not unlawful conduct in and of itself. If, however, Shum was a co-inventor of each of these patents and the conduct of Verdiell in naming himself as the *sole* inventor of the patent was accomplished by deceptive intent on his part, the patents would be unlawful. In order to prove unlawfulness in such circumstances, Shum would have to prove inequitable conduct before the PTO by proof that (1) Shum was an actual co-inventor of the patent; (2) Verdiell knew that Shum was a co-inventor; and (3) Verdiell omitted Shum's name as a co-inventor because he intended to mislead the PTO as to the true inventorship of the patent. On five of the patents the jury found that Shum was a co-inventor, but no evidence was introduced that would provide evidentiary support for factual findings that Verdiell knew that Shum was a co-inventor and that he omitted Shum's name from the patents with the intent to mislead the PTO.

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Lacking any such evidence, Shum raises three legal arguments in support of his breach of contract claim. First, Shum contends that the Court may not consider the question of deceptive intent because any such consideration erroneously introduces a deceptive intent element into Shum's breach of contract cause of action. This argument is frivolous. Although it is true that a contract may be breached without any proof of deceptive intent, in this particular context, the conduct itself which is asserted to be a breach, can be a breach only if it is accompanied by deceptive intent. The Court instructed the jury that Shum must prove the four elements of breach of contract described above. *See* Trial Tr. vol. 19, 4024:16-24, Dec. 17, 2008. The Court does not believe that adding to or altering these instructions would have been appropriate.

Second, Shum argues that the question of intent is a factual question which must be decided by the jury rather than the Court. This argument also lacks merit. In ruling on the instant motion, the Court must determine whether Shum has presented sufficient evidence for a reasonable jury to find in his favor. *See White*, 312 F.3d at 1010. Determination of this question does not invade the province of the jury.

Third, Shum argues that the Court should prohibit Defendants from raising the issue of deceptive intent in the instant motion because they did not raise the issue in their original motion for JMOL. This argument misconstrues Defendants' Rule 50(a) motion. *See* Def. Mot. for JMOL at 7:2-7.

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Accordingly, Shum has failed to present sufficient evidence from which a reasonable juror could conclude that Verdiell breached the POL.

2. Harm

Second, Shum has failed to present any evidence from which a reasonable jury could conclude that Shum suffered harm as a result of Verdiell's alleged breach. Shum's theory of contract damages is that Verdiell failed to buy out Shum's rights to the Radiance intellectual property before Verdiell obtained his patents, secured venture capital for LightLogic, and sold LightLogic to Intel.

Under California law, a "breach of contract is not actionable without damage." *Bramalea Cal., Inc. v. Reliable Interiors, Inc.*, 119 Cal. App. 4th 468, 473 (2004). The "breaching party is only liable to place the non-breaching party in the same position as if the specific breach had not occurred." *St. Paul Fire and Marine Ins. Co. v. Am. Dynasty Surplus Lines Ins. Co.*, 101 Cal. App. 4th 1038, 1061 (2002).

Shum has made no showing that Verdiell's failure to buy out his rights amounts to a pecuniary loss on the part of Shum. Verdiell had no duty to buy out Shum, and the only theoretical damage Shum could have incurred as a result of Verdiell's alleged unlawful patenting would have occurred if Verdiell's conduct frustrated some lawful effort on the part of Shum to acquire patents covering the same subject matter. Under such circumstances, Verdiell's conduct could have interfered with Shum's co-equal right under the POL to commercially exploit his

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patented Radiance intellectual property, and as a result, Shum could have lost profits from the interference with his ability to exploit this property. Lost profits are a recognized measure of damages for breach of contract. *See, e.g., St. Paul Fire and Marine*, 101 Cal. App. 4th at 1061.

Shum has presented no evidence of any such detriment. To the contrary, Shum admitted at trial that he abandoned Luminance, his own post-Radiance startup company, in order to obtain the security of working for an established telecommunications company. *See, e.g., Trial Tr. vol. 3, 607:8-608:5, Nov. 18, 2008*. As a result, Shum has failed to provide any basis for the jury to conclude that he is not already in the same financial position he would have been in had the alleged breach never occurred. *See St. Paul Fire and Marine*, 101 Cal. App. 4th at 1061.

C. Unjust Enrichment

Shum has also failed as a matter of law to prove the elements of unjust enrichment.

1. Preclusion by Express Contract

As a threshold matter, Defendants contend that Shum's unjust enrichment claim is precluded by the POL agreed to by the parties. This Court has already ruled that the POL and Shum's unjust enrichment claim cover different conduct. *See Sept. 26, 2008 Order at 23:24-24:21*. As a result, the POL does not preclude Shum's unjust enrichment claim.

*Appendix D***2. Court or Jury as Fact Finder**

Defendants next contend that unjust enrichment is an equitable claim, and as such, the Court should find the facts on this claim instead of the jury. Shum disputes that unjust enrichment is an equitable claim. Under the Seventh Amendment, a party has a right to a jury trial on any equitable claim that shares common issues of fact with a legal claim asserted by the party. *Shum v. Intel Corp.*, 499 F.3d 1272, 1279 (Fed. Cir. 2007).

There is little doubt that unjust enrichment is an equitable claim. *See Chauffeurs, Teamsters and Helpers, Local No. 391 v. Terry*, 494 U.S. 558, 570 (1990). To be sure, in his Second Amended Complaint, Shum himself pled unjust enrichment “in equity.” *See* Sec. Amend. Compl. ¶ 69. Shum may not retreat from that position now.

Nevertheless, Shum’s unjust enrichment claim shares at least one common issue of fact with his breach of contract claim: whether or not Verdiell in fact believed that Shum was a co-inventor of the patented technology. As already discussed, in order to prove breach of contract, Shum must prove that Verdiell’s patenting activities were unlawful. In order to do this, Shum must establish that Verdiell engaged in inequitable conduct before the PTO by deliberately omitting Shum even though he knew Shum was a co-inventor. Similarly, in order to prove unjust enrichment, Shum must demonstrate wrongful conduct on the part of Verdiell. *See County of San Bernardino*, 158 Cal. App. 4th at 542-43. In order to do this, Shum contends that Verdiell claimed false exclusivity as to his

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Radiance technology patents not only because he knew of Shum's rights under the POL but because he knew Shum was a co-inventor.

Accordingly, because Verdiell's state of mind regarding Shum's inventorship is a factual question common to both unjust enrichment and breach of contract, the unjust enrichment claim was properly tried to the jury.

3. Federal Preemption

In addition, Defendants contend that Shum's unjust enrichment claim is preempted by federal patent law. In a patent case, preemption occurs "whenever the state law provides patent-like protection to subject matter addressed by federal law." *See Dow Chem. Co. v. Exxon Corp.*, 139 F.3d 1470, 1473 (Fed. Cir. 1998) (quotation omitted).

35 U.S.C. § 262 provides, "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." Every co-inventor of a patent is presumptively a co-owner of an undivided pro-rata interest in the entire patent, regardless of his respective contribution to the development of the patented technology. *Ethicon, Inc. v. U.S. Surgical Corp.*, 135 F.3d 1456, 1465 (Fed. Cir. 1998). These ownership interests are separate and distinct. *Willingham v. Star Cutter Co.*, 555 F.2d 1340, 1344 (6th Cir. 1977).

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When one patent co-owner transfers his own interest in a patent to a third party, § 262 preempts any unjust enrichment claim brought by another co-owner seeking to disgorge a portion of the proceeds resulting from that transfer. *See, e.g., Tavory v. NTP, Inc.*, 2008 U.S. App. Lexis 24505, *19 (Fed. Cir. 2008). Such unjust enrichment claims are preempted because they conflict with the purpose of § 262, which provides that a patent co-owner may transfer his own interest in a patent without the consent of, and without any accounting to, the other co-owners. *Id.*

Our case is distinguishable from *Tavory*. In this case, Shum does not seek compensation on the basis that Verdiell did in fact transfer Shum's own interests in the Radiance technology. Rather, the central premise of Shum's "false exclusivity" theory is that Intel bought LightLogic in reliance on Verdiell's misrepresentation that he was the sole owner of the rights to the patents involved in the sale.

Section 262 does not speak to this alleged conduct. As noted above, patent co-owners' interests are separate and distinct. *Willingham*, 555 F.2d at 1344. As a result, the language in § 262 which empowers a patent co-owner to "make, use, offer to sell, or sell the patented invention . . . without the consent of and without accounting to the other owners" refers only to the interests of the transferring co-owner, not the interests of any other co-owner. Accordingly, Shum's unjust enrichment claim falls outside the scope of § 262, and there is no conflict with federal patent law.

*Appendix D***4. “Unjust” Retention of a Benefit**

Shum has failed, however, to present any evidence from which a reasonable jury could conclude that Defendants’ retention of any benefit was unjust.

a. Wrongful Conduct

First, Shum has failed as a matter of law to prove that Verdiell or LightLogic engaged in wrongful conduct. Shum contends that Defendants engaged in wrongful conduct by falsely claiming exclusive ownership of the Radiance technology. Shum’s thesis is that Intel would not buy the patents unless it believed that Verdiell had exclusive rights to the patents. According to Shum, Verdiell also believed that there would be no sale unless he could transfer the entire rights in the patents to Intel, so Verdiell falsely claimed that he owned the entire rights to the patents in order to induce the sale. Shum argues that he presented a variety of evidentiary circumstances in support of this thesis at trial. Shum’s evidence may be loosely grouped into three categories.

The first category consists of evidence which tends to prove that after executing the POL, Verdiell believed that he would have to have exclusive rights to the Radiance technology in order to obtain investment in LightLogic. *See, e.g.*, Trial Tr. vol. 5, 1000:19-1001:4, Nov. 20, 2008. The second category consists of evidence which tends to prove that Intel seeks to obtain “unique” and “proprietary” intellectual property in purchases such as that of LightLogic. *See, e.g.*, Trial. Ex. Nos. 740, 772, 2728.

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The third category consists of three patent assignments which purported to transfer, from Verdiell to LightLogic, “exclusive right, title, and interest” to three patent applications. *See* Trial Ex. Nos. 15-17. The first assignment, filed with the PTO on May 12, 1998, transferred the rights to patent application number 09/003,114, the application which became the ‘567 patent. Trial Ex. No. 15. The second assignment, filed with the PTO on March 4, 1989, transferred the rights to patent application number 09/229,489, which became the ‘724 patent. Trial Ex. No. 16. The third assignment, filed with the PTO on April 28, 1989, transferred the rights to patent application number 09/229,395, which became the ‘950 patent. Trial Ex. No. 17.

The evidence contained in the first and second categories does not provide evidentiary support to Shum’s thesis that Verdiell claimed false exclusivity. In order to prove false exclusivity, Shum must establish that Verdiell actually claimed exclusive rights to the technology at issue, and that Intel relied on that claim. At most, this evidence provides a motivational background for conduct by Verdiell or Intel, but it does not prove the conduct itself.

The patent assignments also fail to establish wrongful conduct. Since we know that both Shum and Verdiell have rights to the Radiance technology derived from the POL, Shum is correct that, on its face, the language “exclusive right, title, and interest” could suggest that Verdiell was attempting to transfer Shum’s rights to the Radiance technology. But that is a complete abstraction from the legal language used in the assignments. In the evidence

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actually introduced at trial, there is nothing to show that Verdiell intended to conceal Shum's POL-based rights in the Radiance technology, or that he attempted in any way to conceal those rights. To the contrary, all of the evidence at trial establishes that Verdiell and LightLogic fully disclosed Shum's rights under the POL to both Intel and LightLogic's venture capital investors. *See, e.g.*, Trial Tr. vol. 11, 2377:3-9, Dec. 3, 2008; *id.* vol. 14, 3047:20-3048:6, 3140:113141:21, 3192:17-3193:15, Dec. 9, 2008; *id.* vol. 15, 3346:514, Dec. 10, 2008. Lacking any evidence to the contrary, no reasonable juror could conclude that defendants Verdiell and LightLogic claimed "false exclusivity" as to the property rights to the Radiance technology.

b. Causation

Even if Defendants had made a claim of false exclusivity, however, their enrichment in this case could not have been unjust unless the alleged claim of false exclusivity actually caused them to obtain a benefit.

Shum has presented no such evidence. At trial, Defendants presented numerous percipient witnesses from Intel and the LightLogic investors who possessed first-hand knowledge regarding their motivations for purchasing or investing in LightLogic. None of these witnesses testified that they believed Verdiell had exclusive rights in the Radiance technology, or that it made any difference to their decisions to invest in LightLogic. To the contrary, every percipient witness testified that they believed Verdiell had the right to use the Radiance

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technology under the POL, and that they also believed that exclusivity did not matter and that it was of no concern to them that Shum had co-equal rights under the POL. *See, e.g.*, Trial Tr. vol. 10, 2160:172161:13, Dec. 2, 2008; *id.* vol. 11, 2377:3-9, Dec. 3, 2008; *id.* vol. 15, 3252:10-3253:14, Dec. 10, 2008. There was no testimonial or documentary evidence offered at trial that contradicts this testimony. There was an observation in Shum's papers that this testimony could be said to be "biased witness testimony." If this is an argument that the Intel or investor testimony in this case was false, the mildest response is that such an argument is incredulous. Shum has failed to establish that if Verdiell and LightLogic received a benefit, that it was caused by a claim of false exclusivity.

5. Amount of Unjust Enrichment

Finally, Shum has failed to prove the amount of Defendants' alleged unjust enrichment. In an unjust enrichment action, the plaintiff must introduce evidence substantiating the amount by which the defendants were allegedly unjustly enriched. *See Storage Techs. Corp. v. Cisco Sys., Inc.*, 395 F.3d 921, 928-29 (8th Cir. 2005).

Shum seeks to recover to "all or half" of the \$58.4 million that Verdiell obtained from the LightLogic-Intel merger, and to additionally recover approximately \$175 million from LightLogic. *See* Trial. Tr. vol. 19, 3878:10-14, Dec. 17, 2008. In the aggregate, Shum asserts that he is entitled to roughly half of the \$409 million LightLogic purchase price. Shum calculated Verdiell's alleged unjust enrichment based on the conclusory opinions of his experts

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that he is entitled to at least half of anything Verdiell acquired as a result of the Intel merger. Shum calculated LightLogic's alleged unjust enrichment by subtracting an assumed value of LightLogic's tangible assets and human resources, as well as the value of Verdiell's alleged unjust enrichment, from the \$409 million Intel purchase price. Shum concludes that the remainder of the purchase price represents the value to Intel of Verdiell's patents on the Radiance technology.

Shum does not dispute that Verdiell spent approximately three and a half years building LightLogic, acquiring venture capital, assembling a management and engineering team, and overseeing the development and manufacture of LightLogic's transponder, as well as the contracts for the sale of these transponders to such Silicon Valley heavyweights as Cisco. All of these assets -- human resources and the tangible and intangible property involved -- were acquired by Intel when it purchased LightLogic. These assets were of obvious and significant value to Intel, and there is no question that this acquisition was a significant reason for the decision by Intel to purchase LightLogic. It should also be noted that the value of these assets is wholly independent of the value of the Verdiell patents which were purchased by Intel at the same time. From an unjust enrichment analysis standpoint, this also means that Intel paid Verdiell and LightLogic for both Radiance and non-Radiance assets, and that an unjust enrichment claim cannot be based on the value on the non-Radiance assets, as that is clearly not a benefit bestowed on Verdiell and LightLogic at the expense of Shum. Neither the sum of money paid by Intel

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to LightLogic or to Verdiell personally can be considered as an unjust enrichment benefit unless the total amount is apportioned between the value of the Radiance and non-Radiance assets. Shum's burden of proof on his unjust enrichment claim includes a burden to produce evidence in support of an appropriate apportionment. But Shum did not do so. There was no evidence offered as to the valuation of either the Radiance or the non-Radiance assets which could support a factual determination by the jury or provide a foundation for an expert opinion. The only apportionment numbers offered at the trial were from conclusory statements of the experts -- they were not derived from or founded upon any evidence of the respective value of the assets.

Accordingly, Shum has failed to meet his burden of proof as to the amount of any claimed unjust enrichment.²

D. Correction of Patent Inventorship

Last, the Court turns to Shum's claim for correction of patent inventorship. As noted, the jury returned verdicts on some patent claims but not on others.

1. Claims for Which the Jury Returned a Verdict

In order for the jury's verdicts to survive the instant motion, the verdicts need only be supported by

2. Because the Court finds that Shum has failed to prove that any defendant was unjustly enriched, the Court need not reach Defendants' contention that LightLogic did not obtain a benefit as a result of the Intel acquisition.

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“substantial evidence” -- that is, “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” *Fisher*, 558 F.3d at 1074. This standard requires considerable deference on the part of the Court, and the Court is prohibited from substituting its own view of the evidence for that of the jury. *Id.*

At trial, Shum presented evidence which established that he and Verdiell worked together in developing the Radiance technologies. Drawings, writings, and models related to both the DBC and the flexure patents, done by both Verdiell and Shum during their work at Radiance, were introduced as evidence to be considered by the jury. Shum was more skilled at producing computer aided (CAD) drawings, and most of those produced were done by him. Of course, the fact that a person produces a drawing or model of a DBC or flexure related device does not establish that that person is the inventor of that device -- that is a separate issue of fact. The jury was fully instructed on the patent law requirements for defining whether or not a person is an inventor and was told to look for the conception of the component elements of the patented invention as the touchstone of inventorship. The jury was not required to return detailed specific verdicts, but it was obvious that it fully considered all the evidence offered on the issue of conception in its verdicts which decided that Shum was a co-inventor of some claims of the patented inventions and not a co-inventor of others.

The jury returned verdicts that Shum was a co-inventor on five of the patents and that he was not the co-inventor of one of the patents. The Court finds no basis

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to usurp the fact finding function of the jury. The Court will deny Defendants' motion with respect to all claims on which the jury returned a verdict.

2. Claims for Which the Jury Failed to Return a Verdict

There are two remaining patent claims which stand in a much different procedural posture. Where there is a mistrial because the jury has failed to reach a verdict, the Court does not apply the deferential "substantial evidence" standard. Rather, the Court must independently assess whether Shum's evidence permits only one reasonable conclusion. *White*, 312 F.3d at 1010.

As to the '724 patent, the jury reached verdicts regarding claims 1, 7, 14, and 16, finding that Shum was a co-inventor of these claims. The jury did not reach a verdict as to claim 5.

Claim 1 of the '724 patent states:

A process for manufacturing an optoelectronic package comprising:
providing a substrate having a first optical element attached thereto;
applying pressure to a flexure causing legs on the flexure to spread further apart so that an optical axis of an optical fiber is in optical alignment with the first optical element; and then
coupling the flexure and the optical fiber to the substrate by attaching legs of the flexure to the substrate.

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Claim 5 of the '724 patent is identical to claim 1 except as to the last clause, which describes "coupling the flexure . . . to the substrate." Claim 5 differs by stating:

coupling the flexure . . . to the substrate .
. . wherein coupling the flexure comprises
coupling a first pair of legs of the flexure to the
substrate . . . and coupling a second pair of legs
of the flexure to the substrate.

The difference in these claim terms is that claim 1 would permit the use of a single pair of legs for the flexure, but claim 5 is limited to a device using two pairs of legs. The jury reached a verdict on claim 1, finding that Shum was a coinventor, but not on claim 5, which demonstrates that they were concerned with the question of whether or not Shum made the contribution of the second pair of legs in claim 5.

The Court has reviewed the evidence at trial on this issue. At trial, Shum's testimony referred to the '724 patent by showing the jury Trial Exhibit 122, which was his March 17, 1997 Record of Invention (ROI) of a "Lever Arm Pivot." Whether or not this exhibit has anything to do with legs of a flexure is a matter of significant debate, but there is no debate that it does not have any reference at all to a second pair of legs for a flexure. Shum also referred to Exhibit 163.008, a CAD drawing made by him on June 1, 1997. This drawing includes a depiction of a flexure device with two pair of legs. The problem, however, is that this drawing is clearly not part of the moment of conception related to the inventive contribution of pairs of

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legs to be used on a flexure. It is clear that this invention had already taken place. The Exhibit is described as a drawing for the fabrication of a device which had already been conceived. There is nothing about this evidence that established anything more than a drawing by Shum of the pre-existing prior art—it does not establish any contribution of an inventive conception in claim 5 of the ‘724 patent. *See Nartron*, 558 F.3d at 1356-58. Shum’s expert, Dr. Wayne Knox, also testified about the ‘724 patent, but his testimony did not add anything to Shum’s testimony on the subject of a second pair of legs for the flexure.

On cross-examination, Shum was asked about a previous statement he had made about the ‘724 patent, when he had answered the question “Are you the sole inventor of the claims in this patent?” by stating, “I am.” He explained that he was not trying to establish sole inventorship by this answer, but rather that he was explaining that as a sole inventor or as a co-inventor he had equal ownership rights to the technology.

In sum, Shum’s evidence does not support any thesis that Shum had contributed the idea of a second pair of legs to the flexure described in claim 5 of the ‘724 patent. Shum has not met his burden of showing an inventive contribution to that claim.

As to the ‘427 patent, the jury reached verdicts as to claims 20, 22, and 23, finding that Shum was not a co-inventor of these claims. As to claim 1, the jury did not reach a verdict. Claim one states:

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A package comprising:
a substrate having a floor;
a first optical element coupled to the substrate;
a second optical element; and
a flexure coupled to the second optical element and the substrate to maintain the second optical element in optical alignment with the first optical element, the flexure including a body and a pair of front legs, the flexure also including a pair of rear legs that are attached to the substrate after the attachment of the front legs to the substrate, the attachment of the rear legs causing the flexure to move from a first flexure position to a second flexure position, the distance between the first flexure position and the second flexure position equaling an offset distance, the body of the flexure having a specified length chosen such that the offset distance causes a second offset distance of the second optical component held by the flexure which is within a specified range, the second offset distance equal to the distance between a primary second optical component position and a secondary second optical component position.

Here again, the Court finds no evidence of any contribution by Shum on the issue of the use of a second pair of legs in a more complex patent describing the use of a flexure to align optical components. Here again, Shum has failed to identify any evidence which would be sufficient to meet his burden of showing by clear and convincing evidence that he made an inventive contribution to claim 1 of the '427 patent.

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Accordingly, the Court grants Defendants' motion with respect to both of the patent claims as to which the jury did not return a verdict.

III. CONCLUSION

For the foregoing reasons, the Court finds:

Intentional Misrepresentation

The defendants' motion for Judgment as a Matter of Law (JMOL) as to plaintiff's Intentional Misrepresentation claim is GRANTED and Judgment for the defendants is entered on this cause of action.

Breach of Contract

The defendants' motion for JMOL as to plaintiff's Breach of Contract claim is GRANTED and Judgment for the defendants is entered on this cause of action.

Unjust Enrichment

The defendants' motion for JMOL as to plaintiff's Unjust Enrichment claim is GRANTED and Judgment for the defendants is entered on this cause of action.

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Inventorship

U.S. Patent No. 5,977,567

Pursuant to the verdict of the Jury, Judgment is entered that plaintiff Frank Shum is a co-inventor of claims 1, 6, 7, 8, 11 and 18.

U.S. Patent No. 6,376,268

Pursuant to the verdict of the Jury, Judgment is entered that plaintiff Frank Shum is a co-inventor of claims 1,4, 12, 13 and 26.

U.S. Patent No. 6,207,950

Pursuant to the verdict of the Jury, Judgment is entered that plaintiff Frank Shum is a co-inventor of claims 1, 2, 14 and 29.

U.S. Patent No. 6,586,726

Pursuant to the verdict of the Jury, Judgment is entered that plaintiff Frank Shum is a co-inventor of claims 1, 2, 5 and 8.

U.S. Patent No. 6,227,724

Pursuant to the verdict of the Jury, Judgment is entered that plaintiff Frank Shum is a co-inventor of claims 1, 7, 14 and 16; and

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Defendants' motion for JMOL as to claim 5 of the '724 patent is GRANTED and Judgment is entered that plaintiff Frank Shum is not a co-inventor of claim 5.

U.S. Patent No. 6,585,427

Pursuant to the verdict of the Jury, Judgment is entered that plaintiff Frank Shum is not a co-inventor of claims 20, 22 and 23; and

Defendants' motion for JMOL as to claim 1 of the '427 patent is GRANTED and Judgment is entered that plaintiff Frank Shum is not a co-inventor of claim 1.

U.S. Patent No. 6,252,726

Plaintiff Frank Shum withdrew any claim based on this patent at the close of evidence.

IT IS SO ORDERED.

Dated: April 29, 2009

s/_____
D. Lowell Jensen
United States District Judge

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**APPENDIX E — PARTIAL JUDGMENT AS TO
CLAIMS FOR CORRECTION OF INVENTORSHIP
PURSUANT TO 35 U.S.C. § 256 OF THE
UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF CALIFORNIA,
FILED APRIL 29, 2009**

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF
CALIFORNIA

No. C-02-3262-DLJ

Frank T. Shum,

Plaintiff,

v.

Intel Corp., et al

Defendants.

**PARTIAL JUDGMENT AS TO CLAIMS FOR
CORRECTION OF INVENTORSHIP PURSUANT
TO 35 U.S.C. § 256**

U.S. Patent No. 5,977,567

Pursuant to the unanimous verdict of the Jury, the Court hereby enters Judgment that plaintiff Frank Shum is a co-inventor of claims 1, 6, 7, 8, 11 and 18 of the '567 patent.

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U.S. Patent No. 6,376,268

Pursuant to the unanimous verdict of the Jury, the Court hereby enters Judgment that plaintiff Frank Shum is a co-inventor of claims 1, 4, 12, 13 and 26 of the '268 patent.

U.S. Patent No. 6,207,950

Pursuant to the unanimous verdict of the Jury, the Court hereby enters Judgment that plaintiff Frank Shum is a co-inventor of claims 1, 2, 14 and 29 of the '950 patent.

U.S. Patent No. 6,586,726

Pursuant to the unanimous verdict of the Jury, the Court hereby enters Judgment that plaintiff Frank Shum is a co-inventor of claims 1, 2, 5 and 8 of the '6276 patent.

U.S. Patent No. 6,227,724

Pursuant to the unanimous verdict of the Jury, the Court hereby enters Judgment that plaintiff Frank Shum is a co-inventor of claims 1, 7, 14 and 16 of the '724 patent.

IT IS SO ORDERED.

Dated: April 29, 2009

/s/ _____
D. Lowell Jensen
United States District Judge

**APPENDIX F — JUDGMENT AS TO STATE
LAW CLAIMS AND PARTIAL JUDGMENT
AS TO INVENTORSHIP CLAIMS OF THE
UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF CALIFORNIA,
FILED APRIL 29, 2009**

UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF
CALIFORNIA

No. C-02-3262-DLJ

Frank T. Shum,

Plaintiff,

v.

Intel Corp., et al

Defendants.

**JUDGMENT AS TO STATE LAW CLAIMS
AND PARTIAL JUDGMENT AS TO
INVENTORSHIP CLAIMS**

Intentional Misrepresentation

On April 29, 2009, the Court entered an Order granting Defendants' renewed motion for judgment as a matter of law (JMOL) as to plaintiff Frank Shum's claim for Intentional Misrepresentation. Pursuant to this Order,

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the Court hereby enters Judgment on this cause of action in favor of defendants Jean-Marc Verdiell, LightLogic, Inc., and Intel Corporation, and against plaintiff Frank Shum.

Breach of Contract

On April 29, 2009, the Court entered an Order granting Defendants' renewed motion for JMOL as to plaintiff Frank Shum's claim for Breach of Contract. Pursuant to this Order, the Court hereby enters Judgment on this cause of action in favor of defendant Jean-Marc Verdiell and against plaintiff Frank Shum.

Unjust Enrichment

On April 29, 2009, the Court entered an Order granting Defendants' renewed motion for JMOL as to plaintiff Frank Shum's claim for Unjust Enrichment. Pursuant to this Order, the Court hereby enters Judgment on this cause of action in favor of defendants Jean-Marc Verdiell, LightLogic, Inc., and Intel Corporation, and against plaintiff Frank Shum.

Inventorship**U.S. Patent No. 6,227,724**

On April 29, 2009, the Court entered an Order granting Defendants' renewed motion for JMOL as to plaintiff Frank Shum's claim for correction of patent inventorship of claim 5 of the '724 patent. Pursuant to this

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Order, the Court hereby enters Judgment that plaintiff Frank Shum is not a co-inventor of claim 5 of the '724 patent.

U.S. Patent No. 6,585,427

Pursuant to the unanimous verdict of the Jury, the Court hereby enters Judgment that plaintiff Frank Shum is not a co-inventor of claims 20, 22 and 23 of the '427 patent; and

On April 29, 2009, the Court entered an Order granting Defendants' renewed motion for JMOL as to plaintiff Frank Shum's claim for correction of patent inventorship of claim 1 of the '427 patent. Pursuant to this Order, the Court hereby enters Judgment that plaintiff Frank Shum is not a co-inventor of claim 1 of the '427 patent.

IT IS SO ORDERED.

Dated: April 29, 2009

/s/ _____
D. Lowell Jensen
United States District Judge

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**APPENDIX G— ORDER OF THE UNITED
STATES DISTRICT COURT NORTHERN DISTRICT
OF CALIFORNIA, DATED OCTOBER 23, 2009**

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

FRANK T. SHUM,

Plaintiff,

v.

INTEL CORPORATION, JEAN-MARC, VERDIELL,
and LIGHTLOGIC, INC

Defendants.

No. C02-3262-DLJ

ORDER RE: TAXATION OF COSTS

On September 25, 2009, the Court heard arguments on Plaintiff's Motion Challenging Clerk's Taxation of the Parties' Bills of Costs. Paul Kirsch appeared on behalf of the plaintiff; Steve Taylor appeared for the defendants. Having considered the arguments of counsel, the papers submitted as well as any supplements thereto, the applicable law, and the record in this case, the Court grants the motion in part as outlined below.

*Appendix G***PROCEDURAL BACKGROUND**

Plaintiff Frank Shum (Shum) and defendant Jean-Marc Verdiell (Verdiell) are optoelectric engineers who worked in the field of fiberoptic telecommunications. In April 1997 they formed a corporation called Radiance Design. Pursuant to a Plan of Liquidation, that company ceased to exist in January 1998. Thereafter Verdiell filed and obtained seven different patents, related to optoelectronic technology, which were owned by a company he had formed called LightLogic. In June 2001 Verdiell sold LightLogic and its patents to Intel Corporation. In May 2002 Shum filed this lawsuit in which Shum claimed that he was defrauded by Verdiell and the other defendants; that there was a breach of contract committed; and that the defendants have been unjustly enriched under California law. Several months later Shum amended his complaint to add a federal claim contending that he was the sole inventor, or at least a joint inventor, on each of the seven patents, and that the patents should be amended to show his inventorship.

The Court decided that the federal inventorship claims and state law claims should be bifurcated, and a bench trial as to the inventorship claims only was held in January 2005. At the conclusion of the trial this Court found that Shum had failed to meet his burden of proof on the inventorship claims and entered judgment in defendants' favor. In 2006, the Court granted summary judgment on Shum's remaining state law claims. *See* Docket Item Nos. 453, 663.

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On Shum's appeal, the Federal Circuit found that the issue of inventorship was integral to the factual basis of the state law claims such that it had to be decided by a jury pursuant to the seventh amendment. The Federal Circuit reversed and remanded the inventorship and state law claims to this Court. The case was set for re-trial.

In November and December 2008 the case was retried before a jury. In the second trial Shum presented two sets of claims, one as to the fraud and fraud related claims under state law, and the other as to his inventorship status as the sole inventor or as the co-inventor of each patent under federal law. On the state law claims he sought verdicts for liability and for damages in the approximate amount of 400 million dollars. On the inventorship claims he sought verdicts establishing him as either the sole inventor or co-inventor of the seven patents.

Just before the second trial began, Shum withdrew all claims of inventorship as to the "dual enclosure" patent (U.S. Patent No. 6,252,726). In the course of trial Shum changed his claims with respect to the remaining patents to one of co-inventorship only. The consequence of this decision is that Shum has implicitly conceded that defendant Jean-Marc Verdiell was at least a co-inventor of each of the six remaining patents-in-suit. *See, e.g.,* 2008 Trial Tr. 732:6-20 (Shum); 734:24-735:5 (Shum); 736:19-737:1 (Shum).

The jury returned verdicts finding that plaintiff had established his co-inventor status with respect to one or more patent claims in five of the six patents still at issue.

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A mistrial was declared as to all other claims as the jury was unable to reach a decision on Shum's remaining claims for inventorship, and as to any of the state law claims for intentional misrepresentation, breach of contract, and unjust enrichment. Subsequently, after post-trial motions, the Court granted judgment for Shum as a co-inventor on five of the patents, and for defendant on the remaining claims, holding that Shum had failed to introduce sufficient evidence to permit a finding of co-inventorship on the sixth patent, or for liability or damages on any of the state law claims. *See* Docket Item Nos. 978, 979 & 980.

On May 13, 2009, both defendants and Shum submitted bills of costs to the Clerk of the Court. On June 29, 2009, the Clerk taxed costs in defendants' favor in the amount of \$507,644.82, and in Shum's favor in the amount of \$195,523.27. Defendants have not objected to the costs which the clerk assessed against them. When the costs are offset against each other, Shum would be responsible to defendants for \$312,121.55. Shum filed the instant motion challenging the Clerk's taxation of the parties' costs both on the overall issue of who was the prevailing party and also on the appropriateness of particular costs.

DISCUSSION.**I. Who is the Prevailing Party?**

Shum and defendants each assert that they are the prevailing party and that they therefore are entitled to an award of costs. Shum uses this argument to ask the Court to award costs only to Shum. While defendants

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argue in rebuttal that they have prevailed, they did not separately file a motion seeking to deny Shum the costs awarded to him.

Federal Rule of Civil Procedure 54(d) provides that “[u]nless a federal statute, these rules, or a court order provides otherwise, costs--other than attorney’s fees--should be allowed to the prevailing party.” Fed. R. Civ. P. 54(d)(1). In a patent case, Federal Circuit law governs the determination of which party has prevailed. *Manildra Milling Corp. v. Ogilvie Mills, Inc.*, 76 F.3d 1178, 1182 (Fed. Cir. 1996). *See also Inland Steel Co. v. LTV Steel Co.*, 364 F.3d 1318, 1320 (Fed. Cir. 2004) (stating that the Federal Circuit has “made it clear” that its own law, rather than that of the regional circuits, defines the meaning of prevailing party in patent litigation).

Shum relies on the *Manildra* case to support his argument that, although he won no monetary damages in his lawsuit, he was still the prevailing party.

The plaintiff in *Manildra* filed suit seeking a declaration that the defendant’s patents were invalid and, additionally, sought monetary damages for the defendant’s alleged violation of the Lanham Act, Kansas common law, and federal antitrust laws. *Id.* at 1180. The *Manildra* plaintiff obtained a judgment that defendant’s patent was invalid. On appeal the court upheld the invalidity decision but reversed the remaining causes of action, which had been the source of a monetary judgment. Nonetheless, the Federal Circuit concluded that the plaintiff was the prevailing party. The basis for the court’s determination

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was that a “plaintiff ‘prevails’ when actual relief on the merits of his claim materially alters the legal relationship between the parties by modifying the defendants’ behavior in a way that directly benefits the plaintiff.” *Id.* (quoting *Farrar v. Hobby*, 506 U.S. 103, 113 S. Ct. 566, 573 (1992)).

The *Manildra* court went on to find that winning a declaration of invalidity permitted the plaintiff to use its production process free from risk of an infringement suit and without the necessity of obtaining a license.

As a result, although Manildra’s suit ultimately produced no money judgment, it . . . stripped [defendant] of a competitive edge vis-à-vis Manildra.” Since “a patentee receives the right to exclude all others from making, using and selling the patented invention, . . . a judicial declaration that one is free from another’s right to exclude alters the legal relationship between the parties.

Id. See also *Kemin Foods, L.C. v. Catholic University of America*, 464 F.3d 1339, 1347 (Fed. Cir. 2006).

Shum asserts that when the reasoning of *Manildra* is applied to his situation, he is the prevailing party. Shum did obtain a judgment that he is a co-inventor of five patents. However, the Court looks at the case as a whole to determine the effect of that jury finding.

In the first action, Shum asserted that he was the sole inventor or a co-inventor of the patents. He did not

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prevail on either claim. The Federal Circuit sent the case back to this Court on procedural grounds holding that the matter of fraud had to go to the jury. In the second action Shum again asserted that he was either the sole inventor or a co-inventor. During cross-examination by defendant during the trial, plaintiff abandoned his claim of sole-inventorship. Therefore he did not prevail on that part of his claim. He did prevail in part on the remaining aspect of the inventorship claim, namely that he was a co-inventor of the patents. He now looks to this, at best, partial victory to allege that he is the prevailing party, ignoring that defendant clearly prevailed on the sole inventorship aspect of this claim. Nonetheless, giving plaintiff the benefit of the doubt, the Court will analyze the effect of his partial victory to determine if it fits the “prevailing party” analysis set out in *Manildra Mining*.

The Court begins by noting that the jury’s finding of co-inventorship status for Shum did not materially alter the legal relationship of plaintiff Shum and defendant Verdiell in any way. First, unlike in *Manildra*, Shum did not win a judgment which excluded Verdiell from the market – Shum was only found to be a co-inventor of the patents, not the sole inventor. This finding then did not give Shum a competitive edge over Verdiell in the marketplace. Moreover, under the Plan of Liquidation, Shum had always had the rights to exploit the technology underlying the patents without having to financially account to Verdiell. So Shum’s co-inventorship status, while perhaps conferring some additional benefits to Shum, does not at all change Shum’s market posture vis-a-vis Verdiell. In *Manildra* terms, Shum’s favorable verdict

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did not materially alter the legal relationship between Shum and Verdiell. Moreover, even if it can be argued that there was some change in the relationship, any such change clearly did not cause the benefit Shum obtained at trial of a declaration of the PTO that he was a co-inventor.

Shum argues in the alternative that he prevailed on the “central issue” of the case. To bolster this claim he points to the language in the Federal Circuit’s decision that “the factual issue of inventorship is a central issue in the determination of fraud,” and that “Shum’s inventorship claim is ‘inextricably intertwined’ with” his state law claims. *Shum v. Intel*, 499 F.3d 1272, 1278 (Fed. Cir. 2007) (citing District Court’s bifurcation order). This Court does not find the language of the Federal Court order to be dispositive of who prevailed in the action, as the Federal Circuit’s opinion regarded the proper procedure for resolving the claims, and was not an opinion on the merits of the action. As a matter of fact, Shum lost his fraud claim, and his favorable inventorship verdict can stand only because it is wholly independent of the fraud claim.

The Court does not believe that the law holds that there can only be one “prevailing” party per case. *See, e.g. K-S-H Plastics, Inc. V. Carolite, Inc.*, 408 F.2d 54, 60 (9th Cir.) cert. denied, 90 S.Ct. 69 (1969)(court did not abuse its discretion in awarding partial costs to prevailing party who was only partially successful); *Bell v. Board of County Com’rs of Jefferson County*, 2007 WL 1411613 (D.Kan.,2007) ([I]n cases in which the prevailing party has been only partially successful, some courts have chosen to

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apportion costs among the parties or to reduce the size of the prevailing party's award to reflect the partial success).

If the Court were required to choose only one “prevailing party”, the Court does not believe that the decision would be a close one—Verdiell would be the “prevailing” party. Rather than being ordered to pay \$400 million to Shum, Verdiell owes nothing to Shum. Rather than losing seven patents, Verdiell retains his inventorship rights and his ability to commercially exploit the technology. Shum gains the legal title of being a co-inventor of certain patents but no right to commercially exploit the technology that he did not already have. Nevertheless, the Court will find that each party prevailed on some aspects of the action, a finding which is consistent with the costs methodology adopted by the Clerk's office in taxing costs and one which has already been implicitly accepted by Defendant. The Court therefore turns to the issue of the specific costs contested by Shum.

II. Should Specific Costs Be Reduced or Disallowed?

Shum argues that the Court can reduce Shum's award or require the party's to pay their own costs. A district court may reduce costs which are unreasonably large or which are not supported by adequate documentation. *See White & White v. American Hosp. Supply Corp.*, 786 F.2d 728, 730 (6th Cir. 1986); *In re Butcher*, 200 B.R. 675, 681 (C.D. CA 1996); N.D. Cal. Local Rule 54-1. The Court also has discretion to award partial costs or to require the parties to pay their own costs. *See, K-S-H Plastics, Inc. V. Carolite, Inc.*, 408 F.2d 54, 60 (9th Cir.) cert. denied, 90

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S.Ct. 69 (1969); *Johnson v. Nordstrom-Larpenieur Agcy, Inc.*, 623 F.2d 1279, 1282 (8th Cir. 1980).

A. Costs Awarded at the First Trial

Following the inventorship bench trial the Court awarded Defendants \$154,400 in costs, then stayed execution on that costs award while the appeal was pending. (See Defendants' Bill of Costs Exhibit D, p. 1.)

As already described, the Federal Circuit reversed the judgments of this Court as to the inventorship trial and remanded the matter for further proceedings. *Shum v. Intel*, 499 F.3d 1272, 1278 (Fed. Cir. 2007). Shum argues that the Federal Circuit's reversal of the earlier judgment in this case vacates the award of costs to Defendants. Shum looks to *Furman v. Cirrito*, 782 F.2d 353, 355 (2d Cir. 1986) for support. The *Furman* case holds that reversal or substantial modification on appeal vacates an award of costs to the prevailing party at the district court level. In *Furman*, the district court dismissed plaintiff's civil RICO action and awarded costs to defendants. The Court of Appeal affirmed, and ordered costs be awarded to defendants-appellees. The Supreme Court reversed (*Joel v. Cirrito*, 473 U.S. 922 (1985)) and vacated the appellate decision. On remand, the appellate court stated that when a district court judgment is reversed or substantially modified on appeal, any costs awarded to the previously prevailing party are automatically vacated. *Id.*, citing 10 Wright, Miller & Kane, *Federal Practice and Procedure*, § 2668 at 213-14.

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Shum argues that this language means defendants are not entitled to any costs from the first trial. However, the *Furman* court goes on to state that “[i]t is often sound policy, of course, to wait until a controversy is finally decided on the merits before awarding costs, and to then determine who is the ‘prevailing party’, instead of judging that issue piecemeal at each stage of the litigation.” *Id.*

Defendants argue that they are entitled to these costs since they were awarded to defendants for defeating Shum’s claims for sole inventorship at the bench trial and prevailing on his remaining claims on a motion for summary judgment. Defendants assert that this is the same result they obtained in the 2009 jury trial, and therefore the 2006 award of costs was attributable to an earlier phase of the successful defense of claims on which defendants wholly prevailed, so that it was properly taxed. *See* 10 Charles A. Wright, et al., *Federal Practice and Procedure* § 2667 (“Further, the prevailing party at a second trial is usually awarded the costs of both trials”). But this ignores the fact that co-inventorship was also an issue at the bench trial and that this issue was decided in Shum’s favor at the jury trial. After the bench trial the verdict against Shum was reversed on appeal.

The effect of the Federal Circuit decision was to return the parties to the beginning of the case. As a result of the second trial, the plaintiff prevailed substantively on one of the inventorship issues presented to the jury – the co-inventorship claim. The defendant prevailed on the other inventorship issue presented to the jury --the sole inventorship claim.

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In the Court's view the defendant is entitled to costs of the bench trial attributable to the sole inventorship issue, but he is not entitled to costs attributable to the coinventorship issue. The record currently before the Court is insufficient for the Court to make a precise allocation of the exact amounts expended at the first trial attributable to defending sole versus co-inventorship, were such a division even possible. The Court exercises its discretion to award to defendants half of the fees they seek to be reimbursed for from the first trial, as they prevailed on only one of the two inventorship claims in the second trial.

B. Costs on Appeal

Defendants have now withdrawn their claim under Rule 54(d) to recover \$1,239.40 in transcript, printing and binding costs incurred in opposing Shum's appeal in 2006.

C. Claims for "Other Costs" For Demonstratives Regarding the Inventorship Claims

Defendants obtained reimbursement for over \$130,000 in costs from four different companies (Focal Point, Verdict Media, Gemmiti Model Art and FTI Consulting) for "demonstrative exhibits," "graphics" and "models" used at trial. Shum argues that Defendants have failed to meet their burden of showing why each of their presentation and exemplification costs were necessary, reasonable, and proper recoverable costs under the circumstances of this case. Shum makes several arguments in this regard. First, he asserts that Defendants' invoices do not provide

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sufficient detail to determine that all of these “exhibits, graphics and models” were actually used at trial rather than in preparation for trial. Shum also claims that there is insufficient documentation for him to determine whether the work was duplicative. Shum then argues that defendants’ claimed costs are too high as they would still have had their demonstratives and graphics from the initial inventorship bench trial. (See e.g., invoice dated 9/9/2008 on Defendants’ Bill of Costs Exhibit D). Finally, Shum claims that defendants may not be reimbursed for these costs because they did not prevail on the inventorship claims which are the subject of all or virtually all of these exhibits, graphics and models.

To the extent that Shum argues that the demonstratives were related to issues on which Shum ultimately prevailed, the Court finds that defendants could not have anticipated that Shum would change his position on inventorship issues right before and during trial; and that understanding the history and creation of the patents was integrally related to the claims on which defendant did prevail.

Local Rule 54-3(d) provides that reimbursement for “[t]he costs of preparing charts, diagrams, videotapes and other visual aids to be used as exhibits is allowable *if such exhibits are reasonably necessary to assist the jury or the Court* in understanding the issues at the trial.” Local Rule 54-3(d)(emphasis added).

Shum’s further objection that there should be no recovery for demonstratives that are not proven to have been used at trial is incorrect as a matter of law. The Local

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Rule allows recovery for materials “to be used” at trial. It does not require actual use of each item so prepared. *See also Haagen-Dazs Co. v. Double Rainbow Gourmet Ice Creams, Inc.*, 920 F.2d 587, 588 (9th Cir. 1990) (costs of exemplification made in anticipation of trial, but not used at trial, are recoverable). The Court concurs with defendants that the case presented complex technical issues and that the jury benefitted at trial from the use of demonstrative evidence.

The Court rejects defendants’ argument that Shum should be required to pay for the time defense counsel spent in “close collaboration” with their consultants, especially as it related to strategic planning for the trial as opposed to costs for production of the demonstratives. Review of the invoices submitted indicate that there are charges for work well beyond the preparation of the demonstratives themselves. The Court finds that the invoices from Verdict Media are replete with references to trial preparation including meeting with attorneys to go over openings and closings statements; to preparation for a mock trial; and to organizing documents. *See* Verdict Media Invoices dated 9/15/08; 12/9/08 and 1/10/09. The Court has reviewed each of the submitted invoices and will not tax costs for work done beyond what appears to be related to the creation or presentation of demonstrative exhibits.

The Court will disallow in its entirety the Verdict Media invoice of 9/15/2008 in the amount of \$3,350. As to the invoice of 12/09/08, the Court acknowledges that the demonstratives could not have been presented without the

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appropriate technical resources. The in-court technician time and the equipment costs associated therewith are therefore permitted. This amount totals \$10,605. (Thus the total bill is to be reduced by \$19,571.96). Similarly, the Verdict Media invoice of 1/10/09 is reduced to cover only in-court technical personnel and equipment for a total of \$13,359.50. (This bill is reduced by \$14,265).

The Focal Point invoices also contain charges for services referred to as “strategy” and “case management”. The Court disallows these amounts. The 9/30/08 invoice of Focal Point therefore is reduced to \$9,250 (thus the total bill is reduced by \$11,367.69). The Focal Point bill of 10/31/08 is reduced to \$7,810.50 (this bill is reduced by \$13,062.73).

The FTI invoice of November 10, 2008 is more difficult to parse. Much of the work involved appears to be in preparation for a mock trial, which cost would not be taxed. The Declaration from counsel Stephen Taylor states that while “some of the 2008 demonstrative exhibits were prepared in advance and used at a mock trial, those same demonstratives were expressly prepared with the jury in mind and were later used or modified for use with the jury.” Taylor Declaration filed 8/21/09 at ¶ 6.

This declaration does not give the Court much guidance as to what percentage of the exhibits constitute “some.” Given the overall cost and variety of exhibits created, and that the burden is on defendants to demonstrate that the taxation of costs is appropriate, the Court will allow only half of the total cost and only permit \$20,490 of the requested \$40,979.90.

*Appendix G***D. Copying Charges**

Shum argues that the \$77,322.40 taxed in costs for photocopying covered copies beyond what was necessary for discovery and for trial presentation. Specifically, § 1920(4) provides that a judge or clerk may tax fees paid for the “exemplification and copies of papers necessarily obtained for the use in the case.” The party seeking to recover these costs must show that the copies were necessary and provided either to the court or the opposing party. *Grady v. Bunzl Packaging Supply Co.*, 161 F.R.D. 477, 479 (N.D. Ga. 1995).

Shum further argues that Defendants have not offered an apportionment of which copies were made in support of the state law claims and which in support of the inventorship claims, on which they did not prevail. Shum therefore contends that at least half of these costs, or \$33,392.43, should not have been taxed as costs.

Defendants counter that their copying costs are reasonable and taxable and that they are entitled to recover costs for reasonably necessary duplication of documents, regardless of whether the copied documents were all offered into evidence. 28 U.S.C. § 1920(4); L.R. 54-3(d)(2); *Haagen-Dazs Co.*, 920 F.2d at 588. Counsel for defendants claims that oversized and color copies were necessary to demonstrate the technology and that in part the large number of copies were needed to be exchanged with counsel as part of the discovery process. Taylor Decl., ¶¶ 8-10. The Court finds that although the copying charge seems high, given the number of documents in the case,

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the Court will reduce the amount by 20% in light of the co-inventorship verdicts and allow the remainder to stand. The result is an allowance to defendants of \$61,857.92.

E. Witness Fees

According to Shum, the clerk erroneously taxed all of the witness fees submitted by Defendants in the amount of \$12,301.63 when the clerk should have only taxed \$1,730.14 (\$12,301.63 - \$10,571.49).

The prevailing party is entitled to recover fees and disbursements for witnesses. See 28 U.S.C. § 1920(3); see also L.R. 54-3(e). Local Rule 54-3(e) provides that *per diem*, subsistence and mileage payments for witnesses are allowable to the extent reasonably necessary and provided for by 28 U.S.C. § 1821. No other witness expenses, including fees for expert witnesses, are allowable.

Shum makes several different arguments about certain of the witness fees. First, Shum wants to strike witness fees totaling \$585.52 apportioned to witnesses the Defendants subpoenaed but did not call at trial. However, the physical presence of a witness at trial is not necessary to recover a subpoenaed witness's costs "when it was reasonably expected that [the witness'] attendance would be necessary and he had held himself in readiness to attend." *Spanish Action Committee v. Chicago*, 811 F.2d 1129, 1138 (7th Cir. 1986); see also *Hurtado v. United States*, 410 U.S. 578, 584-87 (1973) (finding that 28 U.S.C. § 1821 compensates for availability to testify). Defendants contend, and the Court concurs, that the testimony of

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each of the three witnesses was reasonably expected to be necessary given the scope of the issues Shum potentially could have raised in his case-in-chief. Taylor Decl., ¶ 11. Therefore the Court finds that the \$585.52 cost is appropriate.

Shum next seeks to disallow witness fees totaling \$3,484.23 related to defendants' witness, Ramamurthy Sivakumar ("Sivakumar") because according to Shum, Sivakumar was traveling to the United States from India on a business trip, not for trial.

The record on this issue is not completely clear. Shum contends that this witness was called when he was to accommodate his travel schedule. However, counsel for defendants states that Sivakumar did not have plans to be in the United States and that counsel is "informed and believes that [Sivakumar's] business schedule was rearranged" so that he could travel to California to testify. There is no evidence before the Court that Sivakumar came to the United States for any reason other than to testify at trial. Therefore the Court will not disallow his witness fee. While the Court is sympathetic to the toll this travel may have taken on Sivakumar, it does not believe that plaintiff should have to reimburse Sivakumar for the costs of a first-class ticket, especially when counsel for defendants states that it is Intel's general rule that its employees are to fly coach. Moreover, 28 U.S.C. § 1821(c) (1) states that a witness "shall use a common carrier at the most economical rate reasonably available." Shum argues that this entry should at least be disallowed because it constitutes unnecessary flight charges for a first class

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ticket. There is, however, no evidence in the record as to the actual cost of a coach versus a first-class ticket, thus the Court will reduce reimbursement for this cost by half.

Shum also argues that witness fees totaling \$6,501.74 should not be allowed because they constitute charges for Defendants' technical experts on inventorship – and Defendants did not prevail on the majority of those claims. Shum contends that the certain costs of travel and lodging for expert witnesses Dr. Thomas L. Koch, Randy Heyler, Jim Timmins and Dr. Yung-Cheng Lee during the 2008 trial are not taxable because they related to technical issues upon which Shum prevailed. Motion, pp. 12:22-13:12.

Defendants contend that these witness fees should still be reimbursed because the “anticipated testimony of Dr. Koch, Dr. Lee and Mr. Heyler” caused Shum to abandon all of his claims of sole inventorship, as well as any claim of inventorship status with respect to the “dual enclosure” patent.

Dr. Koch, Dr. Lee and Mr. Heyler's testimony may have been part of what caused Shum to abandon his claim of sole inventorship and without Shum having changed his position they might well have been called as witnesses. Moreover, their testimony contributed to defendants' success in maintaining sole inventorship status with respect to the '427 Patent. Taylor Decl., ¶ 14. Finally, Jim Timmins did not testify on inventorship issues. Instead, he gave expert testimony relating to Shum's state law claims, as to which the Court entered judgment in favor of all defendants. Taylor Decl., ¶ 15. Accordingly the travel

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expenses for each of these witnesses were reasonably necessary and properly taxed by the Clerk in defendants' favor.

III. Conclusion

The Court GRANTS IN PART AND DENIES IN PART plaintiff's Motion Challenging the Clerk's Taxation of Costs reducing the costs taxed against Shum by \$177,753.27 as set out in detail below. As the initial amount of costs taxed against Shum was \$507,644.82 the new amount owed would be \$329,891.55.

Category	Amount permitted in Clerks Taxation of Costs	Amount Now Permitted by Court Order
Costs from First Trial	\$154,400	\$77,200
Costs on Appeal	\$1,239.40	\$0
Costs for Demonstratives and Graphics by Company		
Verdict Media invoice of 9/15/2008	\$3,350	\$0
Verdict Media invoice of 12/09/08	\$30,176.96	\$10,605

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Verdict Media invoice of 1/10/09	\$27,624.50	\$13,359.50
The Focal Point invoice of 9/30/08	\$20,617.69	\$9,250
The Focal Point bill of 10/31/08	\$20,873.23	\$7,810.50
F'TI Consulting	\$40,979.90	\$20,490
Copying Charges	\$77,322.40	\$61,857.92
Witness Fees (subpoenaed but uncalled witnesses)	\$585.52	\$585.52
Witness Fees: Mr. Sivakumar	\$3,484.23	\$1,742.12
Witness Fees: Defendants' technical experts on inventorship	\$6,501.74	\$6,501.74
TOTALS	\$387,155.57	\$209,402.30

IT IS SO ORDERED.

Date: October 23, 2009

/s/ _____
D. Lowell Jensen
United States District Judge

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**APPENDIX H — ORDER OF THE UNITED
STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF CALIFORNIA,
FILED NOVEMBER 19, 2002**

No. C-02-03262-DLJ

FRANK T. SHUM,

Plaintiff,

v.

INTEL CORPORATION, JEAN-MARC VERDIELL
LIGHTLOGIC, INC., LUMEN INTELLECTUAL
PROPERTY SERVICES, INC., MAREK ALBOSZTA,
JOHN C. GORMAN, GORMAN & MILLER, AND
DOES 1 THROUGH 100,

Defendant's.

ORDER

On November 1, 2002, the Court heard argument on Plaintiff's Motion to Remand; Defendants Intel Corporation and Jean Marc Verdiell's Motion to Dismiss Plaintiff's First Amended Complaint; Defendants Lumen Intellectual Property Services, Inc., and Marek Alboszta's Motion to Dismiss, or, Alternatively For More Definite Statement; and Defendants John C. Gorman and Gorman & Miller's Motion to Dismiss For Failure to State a Claim and Motion For More Definite Statement. Jeffrey W. Shopoff appeared on behalf of Plaintiff; Stephen E. Taylor appeared for Defendants Intel Corporation and

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Jean-Marc Verdiell; R. Stephen Goldstein appeared for Defendants Lumen Intellectual Property Services, Inc., and Marek Alboszta; Margaret M. Schneck appeared for Defendants Gorman & Miller and John C. Gorman. Having considered the arguments of counsel, the papers submitted, the applicable law, and the record in this case, the Court DENIES Plaintiff's motion to remand; and GRANTS Defendants' motions to dismiss with leave to amend.

I. BACKGROUND*A. Factual Background and Procedural History*

In 1996, Plaintiff Frank Shum formed a sole proprietorship named Radiance. While operating Radiance, Shum asserts that he invented "flexure technology." On April 21, 1997, Shum incorporated Radiance Design Inc., with Defendant Jean-Marc Verdiell, as an equal shareholder. That same day, Shum assigned his invention and patent application rights to Radiance.

At the recommendation of Verdiell, Defendant Lumen Intellectual Property Services Inc., a patent agent, was hired to file a patent application for the flexure technology on behalf of Radiance. Defendant Mark Alboszta is president of Lumen. On April 21, 1997, Lumen filed patent application No. 838,022 listing Shum as the sole inventor of the flexure technology, and Radiance as the assignee.

Soon thereafter, the relationship between Shum and Verdiell deteriorated. On January 5, 1998, Radiance was

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dissolved pursuant to a “Plan of Liquidation.” The plan included the following provision:

Verdiell and Shum shall have equal rights to independently exploit intellectual property developed by the corporation.

During the dissolution negotiations, Verdiell was represented by Defendant John C. Gorman, an attorney and partner of Defendant Gorman & Miller law firm.

Shum alleges that at this time, Alboszta informed him that (1) Verdiell was a co-inventor of the flexure technology, and should have been designated as such on the patent application; (2) the patent application could not be prosecuted further unless Verdiell agreed to be added as a co-inventor; and (3) the patent would be invalid if Verdiell was not added as a co-inventor. Shum further alleges that Verdiell instructed Lumen to file an abandonment application to the USPTO after Shum rejected Verdiell’s demand that Shum give up all interest in the flexure technology in exchange for Verdiell’s agreeing to be added to the patent application.

On November 17, 1996, Lumen filed an abandonment application with the USPTO. Three days earlier, on November 14, 1997, Shum alleges that Verdiell secretly incorporated a new company called LightLogic, Inc. As already mentioned, on January 5, 1998, Radiance was dissolved. The next day, on January 6, 1998, Lumen filed a new patent application on behalf of LightLogic for the flexure technology, listing Verdiell as the sole inventor.

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Pursuant to this application, a patent for the flexure technology has now been issued, listing Verdiell as the sole inventor.

In 2001, Defendant Intel Corporation acquired LightLogic and the rights to the flexure technology patent in exchange for \$409,000,000 in stock.

On May 22, 2002, Shum filed his first amended complaint in California Superior Court. The complaint contains the following causes of action:

1. Fraud (against “Defendants”)
2. Negligent Misrepresentation (against “Defendants”)
3. Misrepresentation (against Lumen and Alboszta)
4. Breach of Fiduciary Duty (against Lumen and Alboszta)
5. Malpractice (against Lumen and Alboszta)
6. Conversion (against “Defendants”)
7. Successor Liability (against Intel)

On July 9, 2002, Defendant Intel removed the case to federal district court. On July 15, 2002, Defendants Intel Corporation and Jean-Marc Verdiell filed a Motion to Dismiss Plaintiff’s First Amended Complaint. On

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this same day, Defendants Lumen Intellectual Property Services, Inc., and Marek Alboszta filed a Motion to Dismiss, or, Alternatively For More Definite Statement. On July 19, 2002, the matter was assigned to this Court. On August 13, 2002, Defendants Gorman & Miller, and John C. Gorman filed a Motion to Dismiss For Failure to State a Claim and Motion For More Definite Statement. On September 20, 2002, Plaintiff filed a Motion to Remand. These motions are now before the Court.

*B. Legal Standard**1. Federal Question/Removal Jurisdiction*

Federal district courts have jurisdiction over “all civil actions arising under the constitution, laws, or treaties of the United State. 28 U. S. C. Section 1331. When the federal district court would have had jurisdiction if the removed case had been filed in federal court originally, the case can be removed from state court to federal court. *See City of Chicago v. Int’l College of Surgeons*, 522 U.S. 156, 163 (1997). “If at any time before final judgment it appears that the district court lacks subject matter jurisdiction, the case shall be remanded.” Title 28 U.S.C.S. 1447(c).

“The district courts shall have original jurisdiction of any civil action arising under any Act of Congress relating to patents. . . . Such jurisdiction shall be exclusive of the courts of the states in patent ... cases.” Title 28 U.S.C. 1338(a). “Whether the case originally could have been heard under Section 1338 depends on whether the plaintiffs, in a well-pleaded complaint, state a claim which

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arises under the patent law. A claim arises under the patent law if patent law creates the cause of action or is a necessary element of one of the well-pleaded claims.” *Jim Arnold Corporation v. Hydrotech Systems, Inc.*, 109 F.3d 1567, 1571, (Fed. Cir. 1997) (quoting *Christianson v. Colt Indus. Operating Corp.*, 486 U.S. 800, 808-809, (1988)).

For the purposes of Section 1338(a) jurisdiction, an issue as to inventorship issue is an issue sufficient to satisfy the jurisdictional test. *See Hunter Douglas, Inc. v. Harmonic Design, Inc.*, 153 F.3d 1318, 1330 (Fed. Cir. 1998) (overruled on other grounds). The question of inventorship can only be resolved under the Patent Act because “federal patent law preempts any state law that purports to define rights based on inventorship.” *University of Colorado Foundation, Inc. v. American Cyanamid Company*, 196 F.3d 1366, 1372 (Fed. Cir. 1999).

2. *Rule 9(b)*

Federal Rule of Civil Procedure 9(b) requires:

In all averments of fraud or mistake, the circumstances constituting fraud or mistake shall be stated with particularity. Malice, intent, knowledge, and other condition of mind of a person may be averred generally.

The Ninth Circuit has held that Rule 9(b) is satisfied if the time, place, and content of the allegedly fraudulent representation and the identity of the person engaged in the fraud are specified. *See, e.g., Wool v. Tandem*

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Computers, Inc., 818 F.2d 1433, 1439 (9th Cir. 1987). Furthermore, in order to survive a motion to dismiss, a plaintiff must also allege specific facts showing how and why a statement was false or misleading at the time it was made. See *In re GlenFed, Inc. Sec. Litig.*, 42 F.3d 1541, 1548-49 (9th Cir. 1994) (en banc) .

If the Court chooses to dismiss the complaint, it must then decide whether to grant leave to amend. In general, leave to amend is only denied if it is clear that amendment would be futile and “that the deficiencies of the complaint could not be cured by amendment.” *Noll v. Carlson*, 809 F.2d 1446, 1448 (9th Cir. 1987) (quoting *Broughton v. Cutter Laboratories*, 622 F.2d 458, 460 (9th Cir. 1980) (per curiam)); see *Poling v. Morgan*, 829 F.2d 882, 886 (9th Cir. 1987) (citing *Foman v. Davis*, 371 U. S. 178, 182 (1962)) (futility is basis for denying amendment under Rule 15).

3. *Federal Rule of Civil Procedure 12(b)(6)*

Pursuant to Federal Rule of Civil Procedure 12(b)(6), a district court must dismiss a complaint if it fails to state a claim upon which relief can be granted. The question presented by a motion to dismiss is not whether a plaintiff will prevail in the action, but whether she is entitled to offer evidence in support of her claim. See *Scheuer v. Rhodes*, 416 U.S. 232, 236 (1974).

In answering this question, the Court must assume that a plaintiff’s allegations are true and must draw all reasonable inferences in the plaintiff’s favor. See *Usher v. City of Los Angeles*, 828 F.2d 556, 561 (9th Cir. 1987).

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Even if the face of the pleadings suggests that the chance of recovery is remote, the Court must allow plaintiff to develop her case at this stage of the proceedings. *See United States v. City of Redwood City*, 640 F.2d 963, 966 (9th Cir. 1981).

Again, if the Court chooses to dismiss the complaint, it must then decide whether to grant leave to amend. Unless the deficiency clearly cannot be cured, leave to amend should be freely granted. *See Noll v. Carlson*, 809 F.2d at 1448.

4. *California Law of Conversion*

Under California law, conversion is “the wrongful dominion over personal property of another.” 5 Witkin, Summary of California Law, Torts, section 610 (9th ed. 2001). California courts generally identify three elements required to establish a claim for conversion: (1) plaintiff’s ownership or right to possession of the property at the time of the alleged conversion; (2) defendant’s conversion by a wrongful act or disposition of plaintiff’s property rights; and (3) damages. *Hartford Financial Corp. v. Burns*, 96 Cal. App. 3d 591, 598, 602 (1979).

Traditionally, California courts have limited conversion claims to cases involving tangible property. *See Olschewski v. Hudson*, 87 Cal. App. 282, 287 (1927); *see also*, 5 Witkin, Summary of California Law, Torts, section 612 (9th ed. 2001). Intellectual property is generally considered an intangible property right. *See Black’s Law Dictionary*, p. 813 (7th ed., 1999).

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Recently, California courts have expanded the scope of conversion to include claims involving some forms of intangible property; however, this expansion has been limited to those intangible interests represented by documents, or are “merged with, or reflected in, something tangible.” *Thrifty-Tel, Inc. v. Bezenek*, 46 Cal. App.4th 1559, 1565 (1996); see Witkin, at section 612. For example, California courts have held that withholding stock certificates gives rise to a valid conversion claim. See *Mears v. Crocker First Nat’l Bank*, 84 Cal.App.2d 637, 644 (1948).

California Courts have refused to recognize conversion claims arising from interference with intangible interests, such as business goodwill and trade secrets, because such interests are “indefinite, intangible and uncertain,” and are not specific enough to be identified. See *Olschewski*, 87 Cal. App. at 288. The same reasoning has been applied to conversion claims involving intellectual property rights. See e.g., *Italiani v. Metro-Goldwyn-Mayer Corp.*, 45 Cal. App.2d 464, 466-67 (1941) (three year statute of limitations for actions based on “taking, detaining, or injuring any goods or chattels, including for the specific recovery of personal property” held inapplicable to claims based on interference with author’s rights in a movie screenplay because rights to such an “intellectual production” are “intangible [and] incorporeal ”).

5. *Statutes of Limitations*

California Code of Civil Procedure, section 338(d), requires that any action for relief based on the grounds

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of fraud or mistake must be filed within three years of discovery, by the aggrieved party, of the facts constituting the fraud or mistake. This statute of limitations commences to run when one has knowledge of facts sufficient to make a reasonably prudent person suspicious of fraud, thus putting him on inquiry. *See Hobart v. Hobart Estate Co.*, 26 Cal.2d 412, 437 (1945). The plaintiff is on inquiry “when (the) knowledge had by or imputed to plaintiff is such as to compel the conclusion that a prudent man would have suspected the fraud [At that time] the court may determine as a matter of law that there has been ‘discovery.’” *Helfter v. Hubert*, 208 Cal.App.2d 22, 24 (1962).

The general statute of limitations for a civil claim is four years. Cal. Code Civ. Pro., section 343. This statute of limitations begins to run when the claimant knew, or should have known, the essential facts to establish the elements of the causes of action, and when the claimant had sustained appreciable and actual damage. *See McKeown v. First Interstate Bank*, 194 Cal.App.3d 1225, 1228 (1987).

II. DISCUSSION

A. *Federal Jurisdiction Due to Substantial Patent Law Question of Inventorship*

Plaintiff argues that since all seven causes of action in his complaint are based upon state law, his claims do not involve any substantial patent law question and are not subject to this Court’s jurisdiction. However, Plaintiff’s

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First Cause of Action alleges that defendants acted fraudulently in filing a patent application in the name of Verdiell as the sole inventor. One of the elements of a California state-law fraud claim is a false representation with intent to defraud. *See Stansfield v. Starkey*, 220 Cal. App.3d 59, 72 (1990). In order to prove the falsity of the defendants' representations, Plaintiff must show that Verdiell is not the true inventor of the flexure technology described in Verdiell's patent application.

The issue of inventorship has been determined to be a substantial question of federal patent law sufficient to confer federal question jurisdiction on the federal district courts. *See Hunter Douglas*, 153 F.3d at 1330; *MCV, Inc. v. King-Seeley Thermos Co.*, 870 F.2d 1568, 1570-71 (Fed. Cir. 1989). Thus, as inventorship is a necessary element of the Plaintiff's claim of fraud, this claim arises under federal patent law and gives rise to federal question jurisdiction.

Furthermore, the other six causes of action are subject to this Court's supplemental jurisdiction as they are "so related to [Plaintiff's First Cause of Action] that they form part of the same case or controversy under Article III." *Hunter Douglas* at 1325.

B. Failure to Properly Plead a Fraud Claim - Rule 9(b)

Bach defendant has moved the Court to dismiss Plaintiff's complaint for failure to comply with the requirements of Federal Rule of Civil Procedure 9(b). Rule 9(b) is satisfied if the time, place, and content of the

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allegedly fraudulent representation and the identity of the person engaged in the fraud are specified. *See, e.g., Wool*, 818 F.2d at 1439. The plaintiff must also allege specific facts showing how and why a statement was false or misleading at the time it was made. *See In re GlenFed, Inc. Sec. Litig.*, 42 F.3d at 1548-49.

Rule 9(b) is an understandable exception to the default pleading rule in federal civil cases that notice is the only requirement. Since accusations of fraud provoke harm regardless of their ultimate reality, they are to be made only when there is an articulable basis.

Plaintiff's First Cause of Action (Fraud) reads in its entirety:

28. Plaintiff hereby alleges and incorporates by reference each and every allegation contained in all paragraphs above, inclusive, as though fully set forth in detail herein.

29. Defendants knew the statements to be false and intended that Plaintiff rely on them. Plaintiff did so rely, and was damaged thereby.

After reference back to the twenty-seven preceding paragraphs it may be possible to discern some general conclusory allegations, such as the alleged fraud flowing from the patent application naming Verdiell as the sole inventor, but it is not at all possible to discern the necessary information required by Rule 9(b). The fraud claims do

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not specify the specific time, place, and content of the statements alleged to be fraudulent. There is no specific identification of which defendant makes which alleged misrepresentation. Finally, the complaint simply omits pleading particular facts alleged to support a conclusion that the statement was false or misleading when it was made. For these reasons, Plaintiff's First Cause of Action is dismissed for failure to comply with the demands of Rule 9(b). Similarly, as Plaintiff's other causes of action are based entirely upon the validity of the claims of fraud, the remaining counts in the complaint are dismissed.

The remaining question is whether to grant Plaintiff leave to amend the complaint. In general, leave to amend is only denied if it is clear that amendment would be futile and "that the deficiencies of the complaint could not be cured by amendment." *Noll v. Carlson*, 809 F.2d at 1448. The facts set forth in Plaintiff's First Amended Complaint do not rule out that a properly pleaded complaint may sufficiently allege one or more frauds against specific defendants in specific instances. For example, Plaintiff appears to allege that Alboszta defrauded him by claiming that Verdiell needed to be included as a co-inventor in Radiance's patent application for the flexure technology. If Plaintiff pleads the time, place, and context of the alleged misrepresentation along with particular facts showing why this statement was false or misleading when made, the Court believes that Plaintiff may sufficiently allege a fraud under Rule 9(b). Therefore, the Court grants Plaintiff leave to amend.

*Appendix H**C. Claims Barred by Respective Statutes of Limitations*

Defendants Lumen and Alboszta ask the Court to dismiss all of Plaintiff's claims, arguing that the causes of action are barred by the running of the respective statutes of limitations. Plaintiff filed his First Amended Complaint on May 22, 2002. With the exception of Defendant Intel's alleged successor liability, all of Plaintiff's claims arise from actions taking place between the incorporation of Radiance and Verdiell's filing of a patent for the flexure technology. Verdiell's patent filing occurred on January 6, 1998. Therefore, Plaintiff filed this complaint more than four years after the final event complained of in any of the causes of action.

Plaintiff's Causes of Action 1-3, and 7 are regulated by California's three-year statute of limitations for claims involving fraud or mistake. *See* Cal. Code of Civ. Pro., section 338(d). Plaintiff's Causes of Action 4-6 are regulated by California's general four-year statute of limitations for civil claims. *See* Cal. Code of Civ. Pro., section 343. Both statutes of limitations begin to run when the claimant knew, or should have known, the essential facts to establish the elements of the causes of action, and when the claimant had sustained appreciable and actual damage. *See Hobart*, 26 Cal.2d 412 at 437; *McKeown*, 194 Cal.App.3d at 1228.

Since Plaintiff's complaint was filed more than four years after Verdiell's filing of the patent, all of the claims appear to be barred by their respective statutes of limitations absent any tolling. In order to determine

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whether tolling is appropriate, the Court must find that Plaintiff did not know, nor reasonably should have known, of the underlying tortious actions against him until such time that the respective statutes of limitations do not bar his causes of action.

Due to the lack of specificity provided by Plaintiff in his First Amended Complaint, the Court cannot determine if tolling is appropriate. For example, Plaintiff claims that Verdiell “secretly” incorporated LightLogic during the dissolution negotiations for Radiance. Does Plaintiff contend that he did not know, nor should have known, of LightLogic nor Verdiell’s subsequent patent filing because of this secrecy? Therefore, the Court points out to Plaintiff that detailed facts within any forthcoming amended complaint must be pleaded to enable the Court to ascertain when he discovered the underlying, tortious activity so that the Court may determine whether any tolling is appropriate.

D. *Improper Conversion Claim Based Upon Intellectual Property Rights - Rule 12(b) (6)*

Each of the defendants has moved the Court to dismiss Plaintiff’s Sixth Cause of Action for failure to state a claim upon which relief can be granted. In the Sixth Cause of Action, Plaintiff claims “[t]he acts of Defendants, and each of them, constitute a conversion of the intellectual property belonging to Plaintiff Shum.”

Traditionally, California courts have limited conversion claims to cases involving tangible property.

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See Olschewski, 87 Cal.App. at 287. Intellectual property is generally considered an intangible property right. *See* Black's Law Dictionary, p. 813 (7th ed., 1999). Recently, California courts have expanded the scope of conversion to include intangible interests represented by documents, to the extent they are "merged with, or reflected in, something tangible," such as stock certificates. *Thrifty-Tel*, 46 Cal.App.4th at 1565. However, California courts have refused to recognize conversion claims arising from interference with intangible interests, such as business goodwill and trade secrets, because such interests are "indefinite, intangible and uncertain," and are not specific enough to be identified. *See Olschewski*, 87. at 288. The same reasoning has been applied to conversion claims involving intellectual property rights. *See e.g., Italiani*, 45 Cal.App.2d at 466-67.

As such, California law does not recognize Plaintiff's claim of intellectual property conversion. Having failed to state a claim upon which relief can be granted, Plaintiff's Sixth Cause of Action is dismissed pursuant to Federal Rule of Civil Procedure 12(b) (6). Furthermore, it does not appear that this claim is curable. Therefore, Plaintiff is denied leave to amend this cause of action.

III. CONCLUSION

For the foregoing reasons, Plaintiff's motion to remand is DENIED. Defendants' motions to dismiss Plaintiff's complaint is GRANTED. Plaintiff is GRANTED leave to amend the complaint except for the claim of conversion.

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Any amended complaint must be filed within 30 days of the date of this order.

IT IS SO ORDERED

Dated: November 19, 2002

/s/ _____
D. Lowell Jensen
United States District Judge

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**APPENDIX I — FIRST AMENDED COMPLAINT
IN THE SUPERIOR COURT OF THE STATE OF
CALIFORNIA FOR THE COUNTY OF ALAMEDA,
FILED MAY 22, 2002**

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FRANK T. SHUM

**SUPERIOR COURT OF THE
STATE OF CALIFORNIA
FOR THE COUNTY OF ALAMEDA
UNLIMITED JURISDICTION**

CASE NO. 2002-050810

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Appendix I

FRANK T. SHUM,

Plaintiff,

v.

INTEL CORPORATION, JEAN-MARC
VERDIELL, LIGHTLOGIC, INC., LUMEN
INTELLECTUAL PROPERTY SERVICES, INC.,
MAREK ALBOSZTA, JOHN C. GORMAN, GORMAN
& MILLER, and DOES 1 through 100,

Defendants.

**FIRST AMENDED COMPLAINT FOR
FRAUD, MALPRACTICE, NEGLIGENT
MISREPRESENTATION, BREACH OF
FIDUCIARY DUTY, CONVERSION SUCCESSOR
LIABILITY**

Radiance Design, Inc. (“Radiance”), which dissolved on January 5, 1998 as a result of the conflict with and failure to perform by the Defendant Verdiell.

2. Defendant Jean-Marc Verdiell (“Verdiell”) is an individual who, through fraud and deceit, misappropriated the optoelectronic technology invented by Plaintiff Shum, and used that technology to establish a start-up company LightLogic, Inc.

3. Defendant LightLogic, Inc., is or was a corporation formed by Defendant Verdiell for the purpose of

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carrying out his fraud upon Plaintiff, and for wrongfully misappropriating and exploiting Plaintiff's ideas and inventions.

4. Defendant Intel Corporation supplies the computing and communications industries with chips, boards, systems and software building blocks that are the "ingredients" of computers, servers, and networking and communication products. Intel's corporate mission is to be the preeminent building block supplier to the world wide Internet economy. To further its mission, Intel corporation acquired LightLogic, Inc. in May 2001, for Intel common stock worth Four Hundred Nine Million dollars (\$409,000,000), for the purpose of acquiring the optoelectronic technology which had been invented by Mr. Shum, and misappropriated by Verdiell and LightLogic.

5. Defendant Lumen Intellectual Property Services, Inc. by and through its President, Defendant Marek Alboszta ("Lumen"), is a Patent Agent charged with the fiduciary responsibility of providing competent, lawful guidance to Plaintiff Mr. Shum in the application for and compliance with all lawful requirements of an application for a U.S. Patent.

6. Defendant John C. Gorman ("Gorman") is an attorney licensed to practice in the State of California, a member/partner of the law firm of Defendant Gorman & Miller and, at all times relevant herein, acted as attorney for Lumen and Alboszta when he was aware that each of those Defendants was acting on behalf of Plaintiff Frank Shum and engaged in the performance of patent

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application responsibilities on his behalf. Simultaneously, Defendant Gorman represented the Defendant Jean-Marc Verdiell with knowledge that Verdiell's interests were adverse to those of Mr. Shum. Gorman was privy to confidential information unbeknownst to Mr. Shum which Mr. Gorman independently utilized in a manner adverse to Mr. Shum and beneficial to the Defendants Lumen, Alboszta and Verdiell.

7. Defendant Gorman & Miller is a partnership or other business entity engaged in the practice of law in California. Defendant Gorman is a member/partner of Gorman & Miller, and Gorman & Miller is liable for the acts of Gorman alleged herein.

8. The true names and capacities, whether individual, corporate, associate or otherwise of Defendants DOES 1 through 100, inclusive, are unknown to Plaintiff who therefore sues said Defendants by such fictitious names; Plaintiff further alleges that each of said fictitious Defendants is in some manner responsible for the acts and occurrences hereinafter set forth. Plaintiff will amend this Complaint to show their true names and capacities when same are ascertained, as well as the manner in which each fictitious Defendant is responsible.

9. Plaintiff is informed and believes and thereon alleges that at all times herein mentioned each of the Defendants was the agent, servant, employee, officer, director, managing agent and/or joint venturer of each of the remaining Defendants, and in doing the things hereinafter alleged, was acting within the course and

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scope of this agency, service, employment, management and/or joint venture.

10. As a direct and/or proximate result of the acts of the Defendants and each of them as set forth hereinabove Plaintiff has suffered economic and personal damages as herein alleged.

FACTS COMMON TO ALL CAUSES OF ACTION

11. Mr. Shum formed Radiance as a sole proprietorship in 1996 for the specific purpose of providing a consulting entity for Mr. Shum's expertise and for the purpose of allowing Mr. Shum to independently develop ideas, concepts, and products which were innovative, unique and essential to the optoelectronic packaging industry.

12. While operating Radiance as his sole proprietorship, Mr. Shum invented certain "packaging" and "flexure technology" in the field of optoelectronics resulting from his extensive educational background and work experience in the field of optoelectronics. The "flexure technology" permits the automated alignment of the optical fibers in the assembly of optoelectronic components, thus greatly reducing the cost of manufacture and the size of the product. These inventions were witnessed by Defendant Verdiell.

13. At the express invitation of Mr. Shum, the Defendant Verdiell was invited to become an equal partner in Radiance, as an incorporated entity, at no cost to Verdiell, with the specific intention that Verdiell would

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conscientiously devote substantially all of his full-time intellectual and professional efforts to further the success of Radiance in the development of the highly valuable, uniquely innovative technology which had been conceived and invented by Mr. Shum. On April 21, 1997, Mr. Shum and Verdiell incorporated Radiance as 50/50 owners. Verdiell was made conversant of Mr. Shum's efforts and accomplishments by Mr. Shum who believed that Verdiell was sincerely interested in facilitating the development and marketing of this unique contribution invented by Mr. Shum and was qualified to implement those goals through private fund raising and other expertise. As a demonstration of Mr. Shum's complete belief in the integrity and commitment of Verdiell, Mr. Shum assigned his invention and his rights to Application No. 08/838,022 on April 21, 1997, simultaneously with the incorporation of Radiance, of which Verdiell was a 50-50 owner by suggestion and agreement of Mr. Shum.

14. Verdiell had a pre-existing relationship with Lumens and Alboszta. Mr. Shum was without experience in the process of applying for a patent and relied upon the good faith, counsel and guidance of Verdiell who introduced Mr. Shum to Defendants Lumens and Alboszta for the purpose of having Mr. Shum hire Lumens and Alboszta as patent agents for his invention. Verdiell presented, represented and conceded that Mr. Shum was the sole inventor. Shortly after this introduction, Lumens and Alboszta filed patent Application No. 08/838,022 on behalf of Radiance, as the assignee of the invention, and listing Mr. Shum as the sole inventor.

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15. As a result of the failure of Defendant Verdiell to perform his responsibilities as promised in the furtherance of the purpose of Radiance, and increasing interpersonal hostility directed by Defendant Verdiell toward Mr. Shum, the relationship between Mr. Shum and Verdiell deteriorated. Ultimately, on January 5, 1998, Radiance was dissolved according to a Plan of Liquidation, which included the following provision:

“Verdiell and Shum shall have equal rights to independently exploit intellectual property developed by the corporation.”

In the negotiations leading to, and the negotiation of the Plan of Liquidation, Verdiell was represented by Defendant Gorman as Verdiell’s attorney. Gorman was also attorney for Lumens and Alboszta and Plaintiff alleges, upon information and belief, believing the allegations to be true, was privy to confidential information relating to Mr. Shum, on whose behalf Defendants Lumens and Alboszta were acting in the capacity of a fiduciary agent and negligently, carelessly and/or intentionally allowed confidential information to be utilized in a manner adverse to Mr. Shum while Gorman was counsel to Lumens and Alboszta, who were required to act protectively of Mr. Shum, simultaneous to Gorman’s representation of Verdiell, whose interests Gorman knew, or should have known in the exercise of due care, to have been adverse to Mr. Shum.

16. As Mr. Shum and Verdiell were negotiating the dissolution of Radiance, Alboszta, acting as president of

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Lumens, took it upon himself to inform Mr. Shum that Verdiell was a co-inventor who should have been listed on the patent, and that Lumens could not proceed to further prosecute the patent unless Verdiell agreed to be added as a co-inventor, that the patent was invalid and Mr. Shum had no alternative but to withdraw the patent. This representation, intended to be beneficial to Verdiell and made to Mr. Shum with the knowledge of Defendants Gorman and Verdiell was contrary to law, false, and, fraudulently, negligently, carelessly and intentionally engaged in conduct designed to deprive Mr. Shum of the principal asset of Radiance and of the fruits of his extensive creative and intellectual efforts, all to Mr. Shum's personal, economic, mental and emotional detriment. Defendants Lumens, Alboszta, Verdiell and Gorman knew, and in the exercise of their fiduciary and professional duties, should have known, that the representation was fraudulent, false, misleading, contrary to law, and designed to cause irreparable and substantial financial, economic, personal and emotional injury to Mr. Shum herein.

17. Defendant Alboszta, on behalf of Lumens, represented, misrepresented that the only way the patent could be made viable by Mr. Shum was to add the Defendant Verdiell as a co-inventor, although Defendant Alboszta knew, and in the exercise of his fiduciary and professional responsibilities should have known, that such status for Verdiell was contrary to fact, untrue and fraudulent. Plaintiff herein alleges, upon information and belief, believing the allegations to be true, that the Defendants and each of them were aware that the

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representations of patent invalidity were false, fraudulent and contrary to law and that the requirement to add Verdiell to make the patent valid was false, fraudulent, and contrary to law.

18. Thereupon, Verdiell stated he was willing to add his name to the patent application, but only if Shum gave up all interest in the invention, which Mr. Shum refused to do. Verdiell thereupon instructed Lumens to abandon the application, and on November 17, 1996, Lumens filed abandonment of the application with the USPTO, thus negligently, carelessly and/or intentionally causing irreparable and substantial economic, financial, emotional and personal harm and injury to Plaintiff.

19. At the same time as Alboszta's misrepresentation, and just three days before the abandonment was filed, Verdiell, and, on information and belief, his attorney Gorman, secretly incorporated a new company called "LightLogic, Inc." on November 14, 1997. Defendant Gorman knew, or in the exercise of due care should have known, that LightLogic, Inc. was incorporated for the purpose of depriving Mr. Shum of the benefits of his extensive and creative intellectual effort, was adverse to his economic, financial, emotional and personal interests and would cause Mr. Shum extensive, irreparable damage.

20. Radiance was dissolved on January 5, 1998. The very next day, January 6, 1998, Defendants filed a new patent application, in deliberate and direct succession and virtually identical to the abandoned application and with substantially identical patent claims. This application

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listed Verdiell as the *sole* inventor. Defendants knew or should have known, from their dealings just months before with Radiance, Shum and Verdiell, that Mr. Shum was the sole inventor, and that this application was fraudulent and in violation of Mr. Shum's rights, patent law, and the Plan of Liquidation.

21. The formation of LightLogic by Defendants, and the subsequent filing of patent applications on behalf of LightLogic by Defendants, were each a fraud upon Plaintiff, and intended by Defendants to deprive Plaintiff of the value of Mr. Shum's inventions and the benefits of the Radiance Plan of Liquidation.

22. Thereafter, LightLogic was acquired by Intel Corporation specifically for the assets it possessed which were the technology invented by Mr. Shum. Plaintiff are informed and believe and, upon such information and belief, allege that Intel Corporation knew, or in the exercise of due diligence and reasonable care, should have known that the technology claimed by LightLogic was, in fact, the technology created by Mr. Shum. Plaintiff are informed and believe and upon such information and belief allege that Intel Corporation acquired LightLogic with knowledge that the patent status of the technology invented by Mr. Shum, and which formed the predicate of LightLogic's acquisition, was flawed but proceeded nonetheless in concert with LightLogic in an effort to secure control of Mr. Shum's technology and invention to his detriment as hereinabove set forth. As corporate successor in interest to LightLogic, Intel is legally responsible for the wrongful conduct and consequences

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of LightLogic's actions and inactions, as well as those of Intel itself.

23. Intel's purpose in acquiring LightLogic and Mr. Shum's technology, and the value of Mr. Shum's technology to Intel have been acknowledged by Intel through statements of its corporate officer, Executive Vice President Sean M. Maloney. Mr. Maloney is the corporate Executive Vice President and the General Manager of the Intel Communications Group, which includes the LightLogic operations. In an article published online by EE Times on March 28, 2002, Mr. Maloney is quoted as stating:

“LightLogic already has begun shipping an OC-192 and 10-Gbit/s Ethernet module that's one-fifth the price of competing products, thanks to LightLogic's patented method for computer-assisted fiber alignment.”

Mr. Maloney's statement describes Mr. Shum's invention, which was misappropriated by Verdiell and LightLogic, and purchased by Intel.

24. At all times herein alleged, Defendants and each of them owed to Plaintiff a continuing obligation arising from their fiduciary and legal relationship with Plaintiff which Defendants, and each of them, individually and jointly, breached by conduct, actions, and inactions of which Plaintiff was unaware at the time of the occurrence. Because of the continuing trust and confidence Plaintiff reposed in Defendants, and each of them, and was

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entitled to rely upon as a result of the fiduciary and legal requirements imposed by law upon Defendants, and each of them, Plaintiff was unable to discover, prevented from discovering, and unaware of the facts upon which these claims of wrongful conduct by Defendants are alleged.

25. The primary Intellectual Property asset of LightLogic was and is a direct result and evolution of the “packaging” and “flexure technology” which resulted from the creative genius of the Plaintiff Frank Shum. The Defendants, and each of them, and especially the Defendants Verdiell and LightLogic knew, or in the exercise of due care should have known that the intellectual property of LightLogic was identical to, derivative from and designed to perform the specific purposes and make the specific contributions to optoelectronic communications as did the “packaging” and “flexure technology” of the Plaintiff Frank Shum.

26. Plaintiff is informed and believes, and upon such information and belief alleges, believing the allegations to be true, that the Defendants, and each of them, at the time of the acquisition of LightLogic, possessed knowledge of the creative origin of the intellectual property of LightLogic, including, but not limited to, the fact of the Plaintiff Frank Shum’s intellectual and creative inspiration of the concept of “packaging” and “flexure technology”; the existence and dissolution of Radiance including, but not limited to, the Application for Patent No. 08/838,022, the withdrawal of the Application and the circumstances surrounding the withdrawal as set forth above; the filing by Defendants of subsequent

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patent applications which were the result of the creative genius of Plaintiff Frank Shum; the conduct, misconduct, representations, misrepresentations, fraudulent, careless and negligent conduct of the Defendants and each of them, individually and jointly as it related to their relationship with the Plaintiff Frank Shum. And, further that the Defendants and each of them, negligently and carelessly, fraudulently and wrongfully engaged in customary and required actions of due diligence prior to the acquisition of the Defendant LightLogic by the Defendant Intel, which, in the exercise of ordinary care and caution did, would, should and is required to elicit the facts surrounding the pivotal creative role of the Plaintiff Frank Shum in the creation of the “packaging” and “flexure technology.” Defendants and each of them, jointly, individually, and acting concurrently, discovered, failed to discover, negligently and carelessly, fraudulently and wrongfully the role of the Plaintiff Frank Shum in the creation of the “packaging” and “flexure technology” with the intent and purpose of depriving the Plaintiff Frank Shum of the lawful interests he possesses in the technology known as “packaging” and “flexure technology.”

27. As a direct and proximate result of the acts, failure to act, negligence, carelessness, fraudulent and wrongful conduct of the Defendants and each of them, individually, severally, and in concurrence one with the other, Plaintiff Frank Shum has been economically and emotionally damaged by virtue of being deprived of his lawful interest in the “packaging” and “flexure technology” which was the impetus and motivation for the acquisition of the Defendant LightLogic by the Defendant

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Intel and the basis upon which the Defendant Intel valued the acquisition.

FIRST CAUSE OF ACTION
(Fraud)

28. Plaintiff hereby alleges and incorporates by reference each and every allegation contained in all paragraphs above, inclusive, as though fully set forth in detail herein.

29. Defendants knew the statements to be false and intended that Plaintiff rely on them. Plaintiff did so rely, and was damaged thereby.

SECOND CAUSE OF ACTION
(Negligent Misrepresentation)

30. Plaintiff hereby realleges and incorporates by reference each and every allegation contained in all paragraphs above, inclusive, as though fully set forth in detail herein.

31. Defendants made the statements alleged in paragraphs above negligently and without reasonable ground for believing them to be true. They made said statements for the purpose of inducing Mr. Shum to withdraw, or consent to the withdrawal of, the Radiance patent application, but for which Mr. Shum would not have consented to the withdrawal. Mr. Shum relied on the statements and was damaged as a result.

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*THIRD CAUSE OF ACTION
(Misrepresentation)*

32. Plaintiff hereby realleges and incorporates by reference each and every allegation contained in all paragraphs above, inclusive, as though fully set forth in detail herein.

33. As patent agents licensed by the USPTO, Alboszta and Lumens have the same duties and obligations in rendering advice concerning patents as does an attorney. They owed a duty to Mr. Shum to use ordinary care in the prosecution of the Shum patent application. In performing the acts recited above, Alboszta and Lumens failed to use ordinary care.

34. As a result of the acts of Defendants, Plaintiff has been damaged in an amount to be proven at trial.

*FOURTH CAUSE OF ACTION
(Breach of Fiduciary Duty)*

35. Plaintiff hereby realleges and incorporates by reference each and every allegation contained in all paragraphs above, inclusive, as though fully set forth in detail herein.

36. Alboszta and Lumens owed a fiduciary duty to Mr. Shum commencing with his initial engagement of them prior to the incorporation of Radiance and Mr. Shum's assignment of the patent to Radiance. The fiduciary duty continued throughout the course of events alleged herein.

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This fiduciary duty includes the obligation to avoid any conflict of interest, and “the highest duty of honesty and loyalty.” Alboszta and Lumens violated this fiduciary duty when, beginning in 1998, they prosecuted applications for the same invention on behalf of Verdiell and LightLogic in violation of the interests and rights of Mr. Shum.

37. The actions of Defendants, and each of them, in breaching their fiduciary duties, in aiding other Defendants in breaching their fiduciary duties to Plaintiff, have caused Plaintiff damage in amount to be proven at trial.

FIFTH CAUSE OF ACTION
(Malpractice)

38. Plaintiff hereby realleges and incorporates by reference each and every allegation contained in all paragraphs above, inclusive, as though fully set forth in detail herein.

39. In prosecuting the application on behalf of Verdiell and LightLogic in 1998, Defendants Alboszta and Lumens had a continuing duty to their client, Mr. Shum, not to act against his interest. In the exercise of ordinary care, Lumens and Alboszta knew or should have known that the 1998 applications were in violation of Mr. Shum’s interests.

SIXTH CAUSE OF ACTION
(Conversion)

40. Plaintiff hereby realleges and incorporates by reference each and every allegation contained in all

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paragraphs above, inclusive, as though fully set forth in detail herein.

41. The acts of Defendants, and each of them, constitute a conversion of the intellectual property belonging to Plaintiff Shum.

*SEVENTH CAUSE OF ACTION
(Successor Liability)*

42. Plaintiff hereby realleges and incorporates by reference each and every allegation contained in all paragraphs above, inclusive, as though fully set forth in detail herein.

43. Thereafter, LightLogic was acquired by Intel Corporation expressly for the assets it possessed which were the technology invented by Mr. Shum. Plaintiff is informed and believes and, upon such information and belief, alleges that Intel Corporation knew, or in the exercise of due diligence and reasonable care, should have known that the technology claimed by LightLogic was, in fact, the technology created by Mr. Shum. Plaintiff is informed and believes and upon such information and belief alleges that Intel Corporation acquired LightLogic with knowledge that the patent status of the technology invented by Mr. Shum, and which formed the predicate of the LightLogic acquisition, was flawed, but proceeded nonetheless in concert with LightLogic in an effort to secure control of Mr. Shum's technology and invention to his detriment as hereinabove set forth.

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44. Through the exercise of due care and diligence the Defendant Intel should have discovered all pertinent, essential and relevant factors affecting the valuation of the acquisition of LightLogic, including the creation of the “packaging” and “flexure technology.” The Defendant Intel’s actual knowledge of the acts of the remaining Defendants and each of them, as herein set forth, is not fully known to the Plaintiff, and Plaintiff alleges upon information and belief that the actions, inactions and conduct of the Defendant Intel substantially and proximately contributed to the deprivation and damages sustained by the Plaintiff Frank Shum by actions, inaction, and conduct, which Plaintiff pleads in the alternative to have been careless and negligent, intentional and wrongful. Plaintiff prays leave to amend this Complaint to further specify the allegations against the Defendants and each of them as evidence is adduced.

WHEREFORE, Plaintiff prays judgment against Defendants and each of them, on each Cause of Action herein, as follows:

1. For damages in a sum to be proven at trial;
2. For interest on said sums from the earliest time permitted by law until the date of judgment;
3. For punitive and exemplary damages in excess of the amount Intel paid for LightLogic, \$409,000,000.
4. For costs of suit herein incurred; and

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5. For such other and further relief as the Court may deem proper.

DATED: May 22, 2002

e. robert (bob) wallach
/s/
Attorney for Plaintiff
Frank T. Shum

JEFFREY W. SHOPOFF
/s/
Attorney for Plaintiff
Frank T. Shum

**APPENDIX J — ORDER DENYING PETITION
FOR PANEL REHEARING AND REHEARING
EN BANC OF THE UNITED STATES COURT OF
APPEALS FOR THE FEDERAL CIRCUIT,
DATED FEBRUARY 24, 2011**

NOTE: This order is nonprecedential.

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

ORDER

A combined petition for panel rehearing and for rehearing en banc having been filed by the Appellant, and the petition for rehearing, having been referred to the panel that heard the appeal, and thereafter the petition for rehearing en banc having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for panel rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the petition for rehearing en banc be, and the same hereby is, DENIED.

The mandate of the court will issue on March 3, 2011.

Circuit Judge Dyk and Circuit Judge Gajarsa did not participate in the vote.

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FOR THE COURT,

s/ _____
Jan Horbaly
Clerk

Dated: 02/24/2011

cc: Gregory S. Cavallo
William F. Lee

SHUM V INTEL CORPORATION, 2009-1385, -1419
(DCT -02-CV-3262)

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**APPENDIX K — ORDER DENYING PETITION
FOR PANEL REHEARING AND REHEARING
EN BANC OF THE UNITED STATES COURT OF
APPEALS FOR THE FEDERAL CIRCUIT,
DATED FEBRUARY 24, 2011**

NOTE: This order is nonprecedential.

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

ORDER

A combined petition for panel rehearing and for rehearing en banc having been filed by the Appellant, and the petition for rehearing, having been referred to the panel that heard the appeal, and thereafter the petition for rehearing en banc having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for panel rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the petition for rehearing en banc be, and the same hereby is, DENIED.

The mandate of the court will issue on March 3, 2011.

Circuit Judge Dyk and Circuit Judge Gajarsa did not participate in the vote.

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FOR THE COURT,

s/

Jan Horbaly
Clerk

Dated: 02/24/2011

cc: Gregory S. Cavallo
William F. Lee

SHUM V INTEL CORPORATION, 2010-1109
(DCT-02-CV-3262)