I. Federalism and Intellectual Property Policy

In the context of federal civil rights legislation, federalism has provided a questionable limit on the powers of the national government. These limits are questionable because of the voice they give to local majority interests at the expense of “discrete and insular minorities.” Whether framed in terms of states’ rights or expansive federal powers, federalism has curbed national legislation aimed at preventing violence against women, protecting voting rights, promoting efforts to clean the environment, or promoting diversity in broadcasting and contracting. Consequently, legal arguments based on federalism have invited skepticism from those harnessing national governmental powers to protect individual rights and promote important social values of nondiscrimination and inclusion.

In intellectual property law, however, federalism arguments play quite a different role. The United States Constitution has granted to Congress the power to enact copyright and patent legislation as well as commercial legislation, such as the Lanham Act, that deals with intellectual property. At the same time, many practitioners and scholars are skeptical of how Congress has wielded this grant of power in enacting intellectual property legislation that unilaterally favors the interests of intellectual property owners, often large, well-heeled corporations, while neglecting the rights of intellectual property users, consisting of consumers, follow-on inventors, small businesses, start-ups, and actors engaged in educational and preservationist efforts. In the case of intellectual property, limits on federal legislation might be desirable, and federalism is one possible limiting principle.

As it turns out, however, the role of federalism in intellectual property is a complex one. In some instances, federalism provides a limit on intellectual property rights. For example, in a series of decisions, the Supreme Court recognized broad state immunity against claims of trademark, patent, and, by implication, copyright infringement. This body of case law gave state entities, such as universities, wide latitude in using works protected by intellectual property with impunity. State immunity protects not only entities whose purpose is to preserve and disseminate knowledge that otherwise would be proprietary under intellectual property law but possibly also companies who collaborate with such entities. For example, Google in initiating its project to digitize university libraries, worked closely with major public universities like Michigan and Wisconsin in order to take advantage of state immunity against intellectual property infringement. Federalism in this instance limits national rights for the benefit of the broader public, in contrast with its role in protecting states’ rights against civil liberties claims.

However, federalism can also expand the rights of intellectual property owners. For example, licensing terms that protect data, as in the case of ProCD v Zeidenberg, or that restrict reverse engineering, as in Bowers v. Baystate Technologies, expand the rights of federal intellectual property owners beyond the terms of federal intellectual property law. These expansions occur at the expense of licensees and other users of intellectual property. In contrast
with federal civil rights legislation, federalism in intellectual property allows state law, in some instances, to expand upon federal protections. Combining this point with that of the previous paragraph, intellectual property federalism is the mirror image of civil rights federalism with state law providing a means to expand federal protections in some instances and limit federal protections in a beneficial way in others.

In truth, the contrast is not as stark as I suggest. Even in the area of civil liberties, state law might serve the role of expanding individual rights. For example, in constitutional law, state constitutions might protect greater protections for speech or for criminal defendants than federal law. Since federal rights are a floor, not a ceiling, states can expand on these rights, and the examples from intellectual property of contract expanding federal IP rights illustrate this expansive potential. The difficult question is how to assess arguments based on federalism in the skein of national rights. When should federalism be recognized to either expand or limit rights? That is the guiding question for this Article.

My examination of intellectual property federalism focuses on the United States Court of Appeals for the Federal Circuit, referred to as the Federal Circuit hereafter. The Federal Circuit is a specialized appellate court created by Congress in 1982 to hear appeals on matters relating to patent law. Created, for budgetary reasons, out of several previous courts, such as the Court of Claims and Patent Appeals and the Court of Claims, the Federal Circuit’s jurisdiction goes beyond appeals involving patents to include cases arising from suits against the United States government, federal contract claims involving the federal government, and claims arising from the Merit Protection Board, reviewing pension claims under ERISA. What is relevant for our purposes is that as part of its jurisdiction over patent appeals, the Federal Circuit reviews cases involving patent and contract law.

As I explain in more detail in Section II, these issues of contract law arise in transactional matters involving patents, such as licenses and assignments. These contract issues also arise under substantive patent law in cases involving the on sale bar. What I show is that the Federal Circuit, since its inception in 1982, has developed a federal common law of contracts that stands independently of state law. In other words, the Federal Circuit has ignored federalism in examining contract rules arising from patent cases. This Article presents an analysis and critique of this development.

The Federal Circuit’s common law contract jurisprudence illustrates the push and pull of federalism policy outside the context of civil rights legislation. What is the proper role of federalism in intellectual property, specifically patent, law? Should federalism arguments be minimized to allow an expansive notion of federal powers? Or should federalism have more sway in intellectual property law to allow for flexibility in state law as it adjusts to policy failures in national law? My argument is that there is room for both roles of federalism within intellectual property as state power serves to regulate the hydraulic pressures on expansive national rights at the expense of intellectual property users. My evidence in support of this claim is to document how the Federal Circuit has expanded its own federal powers at the expense of limiting and enhancing state contract doctrines. The identified common law contract jurisdiction illustrates an erroneous approach to intellectual property federalism.
Legal regimes can foster creation and invention in many ways. Granting Congress the power to enact copyright and patent legislation structures a uniform regime flowing from federal statutes. Preemption precludes states from enacting statutes that compete and potentially substitute for federal schemes. However, under the Supreme Court’s decision in Aronson v. Quick Point, contract rules governed by state laws are permitted to foster innovation. What the Federal Circuit’s contract law jurisprudence illustrates is the interaction between a specialist court and general rules of contracts in the context of innovation. My analysis of the Federal Circuit’s contract law jurisprudence is informed by the theoretical approach of Professors Gilson, Sabel, and Scott in their article on contract and innovation. These scholars argue that private parties engage in contractual innovation in response to technological changes in the environment. Depending on the degree of uncertainty in the economic environment and the thickness of markets, these contractual innovations can take the form of bilateral contracts, trade associations, or more formal regulatory structures created by the state. Generalist courts, they argue, should defer to contractual innovation because the disputes will come to these courts only after greater interactions among economic actors. Specialist courts, on the other hand, should offer more contextualized contract principles based on the type of regulatory systems that may have evolved, whether a trade association or a regulation. Extending the authors’ argument to the Federal Circuit’s treatment of contracts, I contend that the Federal Circuit has inappropriately attempted to assume the role of generalist courts. Instead of developing specialized contract rules for patents, the Federal Circuit should defer to generalist courts, i.e. state law.

Why the Federal Circuit’s questionable common law contract jurisprudence is relevant is answered by Justice Breyer’s dissenting opinion in the Supreme Court’s 2011 decision, Stanford University v. Roche. Section Three presents a complete discussion of this opinion, but what should be highlighted is Justice Breyer’s vehement argument (joined by Justice Ginsburg and in part by Justice Sotomayor) that the Federal Circuit has made up a rule about priority of patent assignment that is inconsistent with established state law precedent. Consequently, Justice Breyer questioned the Federal Circuit’s ruling against Stanford University’s rights in its employee’s patents and its multimillion dollar infringement against Roche. The troubling common law of contracts has a visceral impact on actual cases. The Federal Circuit’s turn also has critical policy implications for the balance between federal and state laws.

How can federalism correct the overreach of the Federal Circuit’s contract jurisprudence. This Article offers a solution, extending the work of legal scholars Erwin Chemerinsky and Paul Goldstein. Professor Chemerinsky is highly critical of the federalism move in Supreme Court cases involving civil rights over the past two decades. He argues that this shift has curtailed federal legislative power and narrowed protections for individual liberties. As an alternative to an approach that has viewed federalism as a limit on national powers, Professor Chemerinsky endorses an empowerment approach that would frame the balance of national and state governmental powers in terms of facilitating government action to solve national problems. Professor Paul Goldstein advocated for a similar approach several decades ago in his assessment of the Supreme Court’s intellectual property preemption cases. Professor Goldstein points out that the Supreme Court’s preemption decisions rested on a close consideration of economic realities and the goals of innovation, allowing state law when it was consistent with federal

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intellectual property policy and preemption inconsistent state law. Such an approach, I would argue, is consistent with what Professor Chemerinsky describes as an empowerment approach. The Federal Circuit’s common law contract jurisprudence is completely at odds with the economic realities approach.

Four policies inform the case law on intellectual property preemption: (1) limiting leveraging of intellectual property rights through the expansion of rights via contract terms and state statutes; (2) preventing state law from serving as a substitute for the federal intellectual property system; (3) limiting the use of state law to remove subject matter that is in the public domain under federal intellectual property law; and (4) facilitating the commercialization and dissemination of creations and inventions protected under federal intellectual property law. The first goal is illustrated by *Brulotte v. Thys*, striking down a license term requiring payments beyond the term of the patent. While the particular result has been questioned, the Supreme Court’s reasoning is robust on the need to limit the patent owner’s expansion of its federal statutory rights through contract. The second policy goal is illustrated by cases preempting state statutes that create alternatives to federal intellectual property protection, such as the Florida statute preventing copying of yacht hull designs in *Bonito Boats v. Thunder Craft*. When the Court held that a license term preventing licensee challenges to patent validity was preempted, the rationale was the conflict with the policy of the patent system to ensure patent quality. Limitations on challenges to patent validity would create a system that took away rights of users to obtain review of patents. The first two policy rationales serve to create a strong and robust national system of intellectual property rights.

The third and fourth policy rationales are more controversial. Both have tended to find against preemption. Contract terms and state statutes can expand the scope of federal intellectual property subject matter without creating a conflict with federal policy. In *Goldstein*, the Supreme Court upheld a state criminal statute preventing the piracy of sound recordings. In a series of decisions flowing from the Seventh Circuit’s decision in *ProCD v. Zeidenberg*, lower court have upheld contract terms that allow protection for subject matter, such as data, not protected by federal intellectual property statutes. Although these decision are controversial, the rationale, however thin, seems to be that what federal law excludes, state law can govern, permitting add-ons to national intellectual property protection. The third policy rationale is directly related to the fourth one, which recognizes the need for state commercial law to facilitate transactions involving intellectual property. The Supreme Court’s decision in *Aronson v. Quick Point* underscores both the third and fourth policies favoring state over federal law. In *Aronson*, the inventor obtained contract protection for an invention that provided unpatentable by shifting the risk of a rejection by the USPTO to the licensee who agreed to pay a higher royalty rate if the patent had been granted. In *Aronson*, the contract not only covered subject matter outside of federal law, but also served as a legal instrument to promote the business relationship between an inventor and a manufacturer and distributor of the invention.

These four policies will be instructive in Section Four of the Article, where I apply them to assess the Federal Circuit’s contract law jurisprudence. What these four policies show is the complexity interaction of national and state regimes in the process of innovation and competition. Highlighting this interaction is an instructive comparison between intellectual property federalism and antitrust federalism. The latter is the subject of my earlier research,
which explains the relationship between economic and political competition in defining antitrust immunity for state action and legislative lobbying. In the case of intellectual property federalism, the balance of state and federal laws reflects commitments to competitive markets guided by effective governmental regulation. Federal intellectual property law, as many have argued, is regulation of the competitive process aimed at correcting limitations of competitive markets in creating and disseminating knowledge and information valuable for innovation and technological development. Limitations on state law serve to cabin the scope of federal regulation by limiting private rights (as with the first and second policies discussed above) while facilitating private orderings through traditional means like contract law (the third and fourth policies discussed above). While in antitrust law, federalism is informed by a difference between economic and political competition, intellectual property federalism reflects different forms of regulation of the competitive process aimed at promoting different types of competition.

Finally, intellectual property federalism should not be seen solely in terms of free markets and laissez-faire competition. Intellectual property rights also implicate civil liberties, particularly rights of expression, but these liberties are often couched in the language of access and dissemination often associated with markets. Dissemination of inventions and creations occurs through many fora, other than markets. The design of intellectual property rights serves to accommodate the many institutions through which knowledge is created and distributed. Intellectual property federalism, consequently, accommodates state and federal governments in their efforts to create a wide-ranging set of institutions for the promotion of innovation and knowledge dissemination. For this reason, the Federal Circuit’s creation of a federal common law of contract is inconsistent with the goals of intellectual property federalism. This proposition is the subject of the following Article.

This key idea is developed in this Article through three parts. Section Two, which follows, presents statistical and narrative summaries of the development of the Federal Circuit’s common law contract jurisprudence. Section Three provides details of this jurisprudence in three areas: assignments, licensing, and the on sale bar. Section Four expands on the policy analysis of this Introduction. Section Five concludes.

II. Common Law Contracts at the Federal Circuit: An Overview

This section presents an overview of the Federal Circuit’s contract jurisprudence, presenting information about the role of the Federal Circuit as a specialist court and about the specific contracts cases the specialized court has adjudicated. Through this presentation, I explore the policy tensions between state contract law and the Federal Circuit’s contract decisions.

The Federal Circuit is an example of what Gilson, Sabel, and Scott call a specialized court. Established by Congress in 1982 by cobbled together the predecessor Court of Customs and Patent Appeals (CCPA) and Court of Claims, the Federal Circuit’s jurisdictions extends under the enabling statute to matters “relating to Acts of Congress related to patent and plant variety protection.” What this means is that with respect to patent matters, the Federal Circuit is the centralized court for all appeals from patent litigation originating in the several district courts. Whether a patent infringement law suit is initiated in the Northern District of California or the Southern District of Florida, its appeal will go to the Federal Circuit. In 2000, the
Supreme Court limited this court’s appellate jurisdiction to original patent claims, and not counterclaims. Under the America Invents Act of 2011, the appellate jurisdiction applies to both patent claims and counterclaims. The Federal Circuit also has jurisdiction to hear appeals of administrative rulings by the United States Patent and Trademark Office (USPTO) although these challenges to a USPTO decision may first be adjudicated by the United States District Court for the District of Columbia as a challenge on administrative law grounds.

Although the Federal Circuit has jurisdiction over matters other than patent through supplemental jurisdiction, it can correctly be identified as a specialist patent court. But the court has a number of specialties beyond patent. Statutory authority extends to appeals from the Merit Systems Protection Board, focusing on claims relating to pensions and ERISA, and to appeals of claims brought against the United States government and claims based on government contracts. Even though the Federal Circuit hears appellate claims based on tort law, property, federal statutes other than intellectual property, and contract, for the purposes of this paper I will characterize the Federal Circuit as a specialized contract court. The court certainly takes contracts cases, but these cases are related to specialized areas involving pensions, agreements with the U.S. government, and patents. Characterizing the Federal Circuit as a specialized contracts court is useful in contrasting its jurisdiction and jurisprudence from generalist courts that can hear contracts cases, such as a state court or a federal court from one of the twelve other circuits under its diversity or federal subject matter jurisdiction.

Support for the Federal Circuit as a specialized contract court exists in a search of the published opinions from the court. A search (done in February, 2013) of the Westlaw database collecting Federal Circuit opinions uncovered 347 opinions that dealt with both patents and contracts since the court’s formation in 1982. A search of pre-Federal Circuit cases dealing with patents and contracts in federal courts uncovered 198 unpublished opinions going back to 1938. These would be from the Court of Customs and Patent Appeals, which started hearing patent appeals in 1929. Of the 347 Federal Circuit opinions, 35 cases dealt with the on sale bar issue alone; 106 cases, with licensing issues alone; 35 cases, with assignment issues alone; and 57 cases involved some combination of the three. The remaining 114 cases dealt with tangential contract issues, such as those arising in antitrust or Lanham Act claims. These numbers suggest that over the course of the court’s 30 year existence, contract issues have systematically and substantively come before the Federal Circuit.

Under the typology suggested by Gilson, Sabel, and Scott, the Federal Circuit as a specialized court should bring contextualized factors to addressing contract disputes which come before it as an appellate question. In the case of government contracts and appeals from the Merit Systems Protection Board, the implication from this typology is that the Federal Circuit should apply the relevant regulatory structures to resolving the contract dispute. In the case of pension matters, for example, that means applying the contextual factors arising from ERISA regulation. In the case of government contracts, the specialized contextual factors would arise from the regulations of the particular agency that is signatory to the disputed contract.

What the prediction about the role of specialized courts would be for contracts regarding patents is a more complicated matter. Patent law is not a body of specialized regulation. The rules and standards provided by patent law apply across industries, across markets, and across all
types of inventors. Gilson, Sabel, and Scott provide several examples of individualized contractual regimes for which specialized courts can serve as providing tailored, contextualized interpretations of contract terms. The two salient examples from their Article are trade associations and state level agricultural safety regulations. These contractual regimes are responses to highly uncertain economic environments in markets with many large-scale players.

Patent law does not fit this paradigm. The goal of patent law is to promote invention through rules that aid an agency and courts in identifying novel, nonobvious, and useful inventions that are disclosed to the public upon a grant of a patent. Patent rules regulate the inventive process broadly without specialized treatment for industry or market. While these rules might be tailored to particular industries, as many scholars have shown, this industry specific application of general patent rules does not imply that the Federal Circuit as specialized contract should provide the contextualizing factors predicted by Gilson, Sabel, and Scott. The Patent Act is not the product of industry driven regulation and is not akin to the workings of a trade association. Patent law provides rules governing the inventive process, not rules of contractual transactions. Consequently, the Federal Circuit should not act as a specialized contract court in the sense used by Gilson, Sabel, and Scott. Although nominally the Federal Circuit’s jurisdiction gives it the characteristic of a specialized court, the nature of patent law requires that it defer to generalized courts on matters of contract. This proposition is a succinct statement of the argument of this Article.

Support for this proposition arises in part from a cursory examination of how certain judges on the Federal Circuit have responded to contract decisions by the court. In *DDB Technologies v. MLB Advanced Media*, a 2008 case involving interpretation of a patent assignment, Judge Pauline Newman voiced a striking dissent to the majority’s adoption of a particular rule for determining priority of assignment. This rule will be explained in Section Three. Her dissent illustrates how the concept of preemption subverts critical policies of federalism, which will be discussed in Section Four.

The panel majority acknowledges “state contract law”, but announces that federal law preempts state law for employment contracts that include rights to patents, reasoning that “[a]lthough state law governs the interpretation of contracts generally, the question of whether a patent assignment clause creates an automatic assignment or merely an obligation to assign is intimately bound up with the question of standing in patent cases” and therefore is “a matter of federal law”. That is grievous overreaching, as well as contrary to law and precedent.

Judge Newman expresses a viewpoint consistent with the desired deference accorded by generalist courts to private contractual orderings. She frames this deference in terms of federalism principles that would support a rejection of preemption.

As an illustration of the overreaching identified by Judge Newman, consider this analysis from the majority decision in *Rhone-Poulenc Agro v. Dekalb Genetics*, a 2002 case raising the issue of whether a sublicensee of a license obtained originally by fraud would be a bona fide purchaser.
In general, the Supreme Court and this court have turned to state law to determine whether there is contractual “authority” to practice the invention of a patent. Thus, the interpretation of contracts for rights under patents is generally governed by state law.... Just as the interpretation of patent license contracts is generally governed by state law, so too the consequences of fraud in the negotiation of such contracts is a matter generally governed by state law, as we have recognized in our companion case, ..It may be argued that the impact of fraud upon the validity of a license as against a bona purchaser defense should also be governed by state law. However, we confront here a unique situation in which a federal patent statute explicitly governs the bona fide purchaser rule in some situations but not in all situations. It would be anomalous for federal law to govern that defense in part and for state law to govern in part. There is quite plainly a need for a uniform body of federal law on the bona fide purchaser defense. ...On the related question of the transferability of patent licenses, many courts have concluded that federal law must be applied.

The technical issue to which the court refers is section 261 of the Patent Act which makes void any subsequent transfers of an agreement not properly recorded with the USPTO. The Federal Circuit extended this statutory provision to deny a bona fide purchaser defense to a non-exclusive licensee. Although the court insists that a similar result would follow from an application of the pertinent state law on bona fide purchasers, the Federal Circuit expressly adopts a federal rule on the grounds that a uniform contract rule is needed in these circumstances. In other words, the Federal Circuit is acting as a specialized court adapting contextual factors to a contract involving a patent. Although Judge Newman did not participate in this appeal, her admonition against preempting the decisions of generalized courts resonates here.

The Federal Circuit appeals to the goal of uniformity in its 2001 decision Group One v. Hallmark case. In this decision, the court addressed the question of what contract principles would apply to the on sale bar. The unanimous opinion provides the following reasoning:

Because of the importance of having a uniform national rule regarding the on-sale bar, we hold that the question of whether an invention is the subject of a commercial offer for sale is a matter of Federal Circuit law, to be analyzed under the law of contracts as generally understood. To hold otherwise would potentially mean that a patent could be invalid in one state, when the patentee's actions amounted to an offer under the laws of that state, and valid in a second state, when the same actions did not amount to an offer under the laws of that second state. Such a result is clearly incompatible with a uniform national patent system.

Uniformity through preemption provides a rationale for a specialized court to take on a role that is arguably inappropriate for the discrete contracting that gives rise to the on sale bar. Although the Federal Circuit nominally bases its contract analysis “on general principles of contract law drawn from the Restatement and the UCC,” it plays lip service to these state law sources of law, supplanting its generalist principles and specialized context that is inconsistent with contractual innovation.
A final example of Judge Newman’s case for overreaching by a nominally specialized court into the domain of the generalist is the conditional sale doctrine. Under this controversial doctrine, a patent owner can impose additional conditions in a sale of a patented invention that provide a limitation on the rights of the purchaser. A conditional sale is a hybrid of a sale and a license, a creation that the Solicitor General has questioned in its briefs for grant of certiori in *Quanta v. LG Electronics* and in *Bowman v. Monsanto*. The problem with this new creation is that it seemingly eviscerates the long established doctrine of patent exhaustion that allows a purchaser to make use of a patented invention within the scope of intended transaction. Since the Supreme Court has upheld patent exhaustion but has not addressed the viability of conditional sale, the doctrine stands and serves as an evidence of a specialist court adopting contextualized rules for contracts involving patents.

The Federal Circuit first recognized the conditional sale doctrine in *Mallinckrodt v. Medipart*, a 1992 decision involving restrictions on reuse of a medical device. Instead of addressing the restriction in terms of its reasonableness, the majority appealed to contract law, specifically Article 2 of the Uniform Commercial Code, to create the specialized doctrine:

> In accordance with the Uniform Commercial Code a license notice may become a term of sale, even if not part of the original transaction, if not objected to within a reasonable time. U.C.C. § 2-207(2)(c).

What the Federal Circuit’s appeal to the Uniform Commercial Code does is allow patent owners to impose additional use-limiting restrictions on purchasers. This controversial interpretation of the Article 2-207 arises in other contexts, particularly involving clickwrap or rolling contracts. But in the context of patent law, the application of the UCC gives support to a new doctrine of patent law that allows the patent owner to sue for patent infringement if there is a violation of the restriction. A specialized court invades the domain of a generalist court to fashion a context specific rule. What is particularly troubling is that the above words were authored by Judge Newman, who seemingly exhibits the type of overreaching she criticized in the context of patent assignments.

This section has explained how the Federal Court’s contract law jurisprudence fits the analytical model of Gilson, Sabel, and Scott. Contractual innovation should be the domain of generalist courts with specialist courts providing contextual factors to contract enforcement only for evolved contractual schemes, such as trade associations and formal regulation. My argument is that the Federal Circuit has invaded the territory better delegated to generalist courts under broad principles of preemption as illustrated by three areas: assignments, the on sale bar, and the conditional sale doctrine. In Section Three, I examine the Federal Circuit’s jurisprudence in these three areas to illustrate how the Federal Circuit has coopted what is best left to generalist courts. In Section Four, I explain how intellectual property federalism proffers a cure.

III. Assignments, the On-Sale Bar, and Licenses as Conditional Sales

A. The Problem of Conflicting Patent Assignments

Simultaneous patent assignments are a common problem and have been reviewed by the United States Supreme Court. A university researcher has entered into a consulting or other
arrangement with another entity. As part of that arrangement, the university researcher signs a contract assigning patent rights in any inventions arising out of the consulting to the second entity. Predictably, the university researcher had signed a similar agreement with the university employer earlier. When it comes time to determine who gets the patent rights, which assignment should prevail?

This scenario was before the United States Supreme Court in 2011 in a case called Stanford v. Roche. At issue was research pertaining to AIDS therapies. The patents covered diagnostic and therapeutic methods. Stanford claimed ownership to the patents based on the earlier assignment. To add further support, it turned to the Bayh-Dole Act, the famous 1980 legislation that permitted university patenting of inventions developed by researchers and professors based on federal funding. Prior to the Bayh-Dole Act, patents on inventions derived from federally funded research were not permitted by government regulations. The policy behind this restriction is that taxpayers already paid for the research and so the results should not be proprietary. The Bayh-Dole Act removed the restriction and changed the policy. Patents were a tool that would allow university research to be commercialized and disseminated to the public. Consequently, Stanford argued the Bayh-Dole Act granted university’s patent rights to its researchers’ inventions even if there was no assignment or other agreement transferring the rights.

The district court, the lowest level court that hears a case, agreed with Stanford. But as happens with litigation, the ruling was reversed on appeal. The appellate court that reached the opposite conclusion was the United States Court of Appeals for the Federal Circuit, the exclusive appellate court that hears appeals from patent claims. According to the Federal Circuit, the Bayh-Dole Act did not create university ownership rights outside of contractual assignments. All the Bayh-Dole Act did was permit universities to acquire patents for inventions that came out of federal funding. To determine whether Stanford or Roche was entitled to the patents depended on the language of the assignments. While it was true that the assignment to Stanford predated the one to Roche, Stanford’s assignment used faulty language. It was, the Federal Circuit ruled, ineffective in assigning any rights to Stanford in the patents. Roche’s assignment language was not faulty. Therefore, Roche was entitled to the patents.

When so much was at stake and when such well-heeled actors were involved, it was perhaps inevitable that the United States Supreme Court would hear the case. The case was the first one that the Supreme Court has ever decided dealing with the Bayh-Dole Act. Although in many other instances, the Supreme Court and the Federal Circuit came to opposite conclusions on matters of patent law, in Stanford v Roche, the two courts agreed. The Bayh-Dole Act, as the Federal Circuit concluded, does not create patent rights in universities. Patent rights are a matter of assignments and contracts. Furthermore, the Supreme Court concluded, the Federal Circuit was right about the respective assignments. Roche wins.

As if these details were not enough for an article such as this one, there was another, perhaps more intriguing wrinkle. Two justices stated in their respective opinions that the Federal Circuit may have the law of patent assignments and contracts wrong. Justice Sotomayor agreed with the rulings, but stated that the Court should reconsider the Federal Circuit’s case law on patent assignments. The problem is that as a procedural matter the issue was not in front of the
Supreme Court. So, Justice Sotomayor left the matter for another case. Justice Breyer, however, was not so reluctant. His view and that of the two justices, Justice Stevens and Kagan, who signed onto his dissent was that the Court was in a position to reassess the Federal Circuit’s case law on patent assignments. The dissenting justices ruled that this case law was erroneous, and therefore Stanford should win. But dissenter only set the stage for future legal disputes, and of course for articles like this one.

This article shows that Justices Breyer and Sotomayor were correct. The Federal Circuit’s case law on patent assignments is problematic and should be re-examined. The Federal Circuit elevates formal language over substance. On the other hand, my argument is that the Court’s interpretation of the Bayh-Dole Act was correct. What I am hoping from this article is to bring to light the important issues of patent and contract law raised by Stanford v. Roche. The issues raised by Justices Breyer and Sotomayor will be before the Court again. This article can serve as a template for that dispute. But more to the point, this article addresses the practical issues raised by Stanford v. Roche and the use of assignments.

The rest of the article consists of three parts. The next part analyzes the Stanford v. Roche litigation. Section Three looks at the problems with the Federal Circuit’s approach to patent assignments. Section Four summarizes the practical implications.

1. The Supreme Court and the Bayh-Dole Act: Stanford v. Roche

At issue in the Roche case is the ownership of three biomedical patents obtained by Stanford on HIV quantification techniques. Although the narrow focus of the case is in the field of biotechnology, it has implications for any scientific research area. The common practice at issue is the signing of multiple assignments by an inventor to various entities with which the inventor works. How to reconcile these conflicting legal obligations is the key practical problem raised by the Roche litigation.

Dr. Holodniy was a scientist working for Stanford University in the field of HIV and AIDS research. As part of his employment with Stanford, he signed a standard employment contract under which he “agreed to assign” all interests in any inventions that came out of his work to Stanford. Holodniy’s research required me to work with Cetus to learn the company’s technique of polymerase chain reaction (PCR) used to make copies of DNA sequences. Holodniy, while still employed with Stanford, visited Cetus to undertake training. As a visitor, he was obligated to sign a confidentiality agreement which stated that Holodniy “agreed to and hereby does assign” all interests in inventions that arose from his work at Cetus. Based on Holodniy’s work at Stanford, the university received three patents in the field of HIV counting. These patents were the basis for the lawsuit.

Roche acquired Cetus and all of its assets, including legal interests in inventions that arose from contract. Roche practiced the inventions covered by Stanford’s patents, and Stanford sued for patent infringement. One of Roche’s defenses to patent infringement was that Stanford was not the owner of the patents and therefore could not sue for infringement. The district court disagreed and found that Stanford was the owner of the patents. Under the terms of the assignment, Stanford had an interest in Holodniy’s inventions created after the date of the
assignment. Stanford’s interest trumped those of Roche, standing in the shoes of Cetus, because when Holodniy signed the agreement with Cetus, he had nothing to convey since he had already assigned his legal rights in the invention to Stanford.

The tides turned for Stanford upon appeal by Roche. Patent infringement cases are appealed to the United States Court of Appeals for the Federal Circuit, a specialized appellate court created by Congress in 1982 to strengthen and harmonize patent law. The Federal Circuit can hear issues related to patent law if they are pertinent to the case. In the case of Roche’s appeal, the issues of patent ownership under the Bayh-Dole Act and of patent assignment were before the court. The Federal Circuit ruled that the Bayh-Dole Act did not grant Stanford any rights in Holodniy’s inventions. Instead, Stanford’s rights were based solely on the assignments, or contracts, between Stanford and its employee. Parsing the language of the assignments, the court ruled that Stanford had no right in Holodniy’s invention since Holodniy simply agreed to assign his rights at some future time. By contrast, Holodniy’s agreement with Cetus did transfer rights to Cetus. In the confidentiality agreement with Cetus, Holodniy stated that he hereby assigned his rights in all future inventions. This language implied a present transfer of rights as opposed to assign rights in the future. Consequently, Cetus had the rights to Holodniy’s inventions while Stanford did not. Therefore, in short, Roche had ownership of the patented inventions. Stanford had no rights in the patents and therefore could not sue for patent infringement.

The Federal Circuit’s ruling was greeted with much consternation. Many universities have language similar to Stanford’s in its agreements. These agreements as written could be readily trumped by another agreement that more clearly used words like “hereby.” Consequently, the Supreme Court’s decision to review the Federal Circuit decision was seen as a hopeful sign. Not only would the Court’s final ruling be its first on the Bayh-Dole Act, but it would overrule what many saw as a strained reading of contractual language by the Federal Circuit.

Such hopes, however, were not fulfilled. The Supreme Court affirmed the Federal Circuit’s ruling. The Bayh-Dole Act did not give universities special rights in patents above and beyond what was created through contract. The Supreme Court upheld the Federal Circuit’s interpretation of the assignments without review since the question was not directly raised upon appeal. This procedural issue became a point of contention among the justices. Justice Sotomayor wrote in agreement with the ruling of the Court, but stated that she did not agree with the Federal Circuit’s reading of the assignments. Since the issue of contractual language was not properly raised before the Court, Justice Sotomayor concluded that this case was not the proper vehicle through which to review how the Federal Circuit interprets contractual language. Justice Breyer, however, disagreed with the Court. Writing with Justice Ginsburg, Justice Breyer would have sent the case back for further argument on the proper reading of the assignments. His dissenting opinion not only concluded that the Bayh-Dole Act did grant Stanford rights in the patents, but also raised the question of whether the Federal Circuit’s understanding of the law of patent assignments was correct. The discussion in the opinions implies strongly that the issue of patent assignments will be before the Court soon.
So are Justices Sotomayor, Breyer, and Ginsburg correct? Does the Federal Circuit have the law of patent assignments wrong? These questions and others are the basis for analysis in the next section.

2. Has the Federal Circuit Misunderstood Patent Assignments?

Justice Breyer concludes that Stanford had title to the patent at issue in its infringement claims against Roche for two reasons. First, the Bayh-Dole Act grants title in federally funded research to the grant recipient, here Stanford. On this point, Justice Breyer’s dissent is in direct conflict with the majority decision, which is the applicable law. Unless the majority’s decision is overruled, it is unlikely that Justice Breyer’s dissent will have much effect. The second justification for Justice Breyer’s conclusion is more salient. He reasons that the Federal Circuit law of conflicting patent assignments is incorrect and recommends that it be reviewed by the lower court and possibly by the Supreme Court. Since this second justification is in a dissent, it also has no direct effect. But the points raised by Justice Breyer will have implications for future cases and therefore is worth pursuing and understanding more deeply.

The Federal Circuit based its ruling in Stanford with respect to the conflicting assignment issue on its 1991 precedent, Filmtec v. Alled Signal. It is this decision that Justice Breyer questions because of inconsistency with prior law. The Federal Circuit ruled in Filmtec that priority of assignment depends upon whether an assignment is a present transfer of a future interest or an intention to transfer a future interest in the future. The future interest at issue is the patent which did not exist when the employee entered into the respective contracts. The assignment provisions were a promise to assign the patent rights when they arose. If, however, the assignment provision was a present transfer, as would be demonstrated by the use of the word “hereby,” then the transfer to the employer is automatic as soon as the future patent rights come into being. In the case of Holodniy, the Federal Circuit concluded that all Stanford had was a promise for its employee to transfer future patent rights sometime in the future. By contrast, Cetus had obtained a present transfer of future patent rights which would come into effect when the patent was granted. Therefore, according to the Federal Circuit’s reasoning, Cetus and its successor, Roche, owned the patent rights.

Justice Breyer finds several flaws with the Federal Circuit’s reasoning. It rests too simplistically on formal language that creates a trap for the unwary. The rule announced by the Federal Circuit is unpredictable and burdens entities that thought they had the right drafting, to be told that in fact they did not. Furthermore, the Federal Circuit’s reasoning is inconsistent with prior law, based in part on state law, that the assignment first in time would create an equitable interest that would have to be weighed against subsequent assignments. Stanford, as the first assignee in time, should win, according to this view of patent assignments. If this point seems cryptic, I will discuss it in more detail below.

I address Justice Breyer’s concerns in two parts. First, I analyze whether the Federal Circuit’s 1991 decision in Filmtec was correctly decided. I suggest that the ruling has little relevance to the facts of the Stanford case. In other words, whatever rule the Federal Circuit
announced would apply to a very different situation. Second, I turn to the more challenging question of what was the right rule to apply in a case like Stanford v. Roche.

3. A Precedent Misapplied

The facts leading up to the litigation brought by Filmtec against several companies for patent infringement bears a superficial similarity to those of the Stanford litigation against Roche. John Cadotte worked for Midwest Research Institute (MRI), a research organization focusing on desalination and liquid purification. The Institute was supported by government grants from the Office of United States Water Research and Technology of the Department of Interior. Cadotte left his employment with MRI and developed a new type of reverse osmosis membrane useful for separating dissolved molecules and materials from solvents. Cadotte obtained a patent on this new membrane and for its use in desalinization and purification. Along with former co-workers from MRI, Cadotte formed a company Filmtec to which he assigned his patent rights. Filmtec sued a number of companies for unauthorized use of the patented membrane, including Allied-Signal and Hydranautics, two defendants central to the legal developments analyzed here.

Filmtec filed a motion for a preliminary injunction against Allied-Signal. This motion, if granted by the court, would allow Filmtec to prevent Allied-Signal from using the patented invention while the parties litigated the infringement matters. In deciding whether to grant a preliminary injunction, the court looks to, among other factors, the likelihood that Filmtec would win at trial. The district court granted the preliminary injunction, but Allied-Signal appealed the ruling to the Federal Circuit. In challenging the grant of the preliminary injunction, Allied-Signal raised the argument that Filmtec would likely not prevail because it was not the owner of the patent. As Allied-Signal argued, under the terms of MRI’s grants from the Department of the Interior, MRI was under an obligation to assign any patents that came out of the funding to the Department. Allied-Signal pointed out that since Cadotte’s inventions came out of his work for MRI, the Institute was the owner of the invention and the patents were automatically assigned to the Department.

The Federal Circuit assessed Allied-Signal’s points and concluded that there was a genuine issue of patent ownership. Specifically, the court reasoned that patent ownership would depend upon the employment agreement between Cadotte and MRI and upon the timing of Cadotte’s invention. If Cadotte had invented after he left the employment, then he possibly had no obligation to MRI unless his agreement imposed some obligation. Furthermore, if Cadotte had invented during his employment, his agreement might have obligated him to assign his patent rights to MRI. Since the district court had not reviewed these issues, the Federal Circuit sent the case back to the lower court for further consideration on the grant of preliminary injunction.

The Federal Circuit’s ruling in favor of Allied-Signal is the basis for its subsequent decision in favor of Stanford. One important point to emphasize about the earlier Federal Circuit decision is the procedural context in which the case was decided. The Federal Circuit’s opinion contains an extensive discussion of assignments and priority, but it does so in the context of a preliminary injunction assessing the likelihood of the patent owner’s success at trial. The
Stanford case before the Federal Circuit did not involve a preliminary injunction motion. Instead, the issues were about the findings after trial in favor of Stanford. The two contexts are somewhat different, and the speculative discussion by the Federal Circuit has questionable application to the context of the Stanford case.

An even more compelling basis for questioning the case as precedent is the fact that the Federal Circuit did not actually rule on ownership in the Allied-Signal case. Instead, the appeals court set out some general factors that the lower court should look to in determining whether a preliminary injunction was appropriate. In *Hydranautics*, the Federal Circuit in fact did decide the ownership issue, reviewing the district court findings. Affirming the district court, the Federal Circuit in the Hydranautics ruling upheld the finding that Cadotte had invented the membrane and process while employed with MRI and that his employment agreement with MRI assigned all rights to the Institute. These rights in turn were assigned under the terms of MRI’s grant to the Department of Interior. In the Filmtec case, contra Stanford, the grant recipient obtained patent ownership, which in turn transferred to the government as grantor.

Procedurally and substantively, the Federal Circuit’s ruling in *Filmtec* seems like an unlikely basis for the ruling in *Stanford*. Even more striking are the contrasting scenarios in the two cases. At issue in the Filmtec is not two conflicting assignments. Instead we have a serial assignment. This point is visualized in Figure One. Under the court’s analysis, Cadotte (C) had a contractual obligation to MRI, its employer, which in turn had a contractual obligation to the government (G). The problem was how to interpret these obligations in light of the facts. Once it was determined that Cadotte had completed the invention while employed by MRI, the respective serial assignments came into play, transferring the rights from Cadotte to MRI and then to the government.

![Figure One: Scenario in Filmtec](image)

In contrast, the Stanford dispute did involve conflicting patent assignments. Holodniy (H) had made an assignment to Stanford (S) and an independent assignment to Cetus (Cs). Figure Two illustrates. The two assignments did not depend upon the other. Instead, the problem was to determine which of the two assignments trumped the other. In Filmtec, however, both assignments could be satisfied. MRI’s obligation to the government, however, was dependent on Cadotte’s assignment to MRI.

![Figure Two: Scenario in Stanford](image)
Contrasting the two scenarios highlights the problem with the Federal Circuit’s application of its Filmtec precedent to the facts of Stanford. The Federal Circuit’s reasoning in Filmtec centers on how to interpret the respective assignments. Both assignments used the word “hereby” indicating a present transfer of a future interest. Once it as determined that Cadotte had invented his membrane while employed with MRI, the serial assignments took effect without conflict.

In Stanford, however, the patents could be assigned to only one of the two entities. In theory, a joint ownership could be another possibility, but that is rare and would be unlikely under the scenario since no party envisioned joint ownership. Given this conflict, the Federal Circuit examined the language of the two assignments and found that the one with Cetus contained the word “hereby” and the one with Stanford did not. It reasoned from this difference that Cetus had a present assignment while Stanford had a future assignment. The first trumped the second, the Federal Circuit concluded. It is this conclusion that Justice Breyer is questioning. The conclusion does not, however, follow from the Filmtec precedent. One has to wonder how the Federal Circuit reached its conclusion.

Following the opinion closely, it seems that the Federal Circuit reached its conclusion as a matter of logic. If Cetus had a present assignment of future interests, then the assignment took effect as soon as the future interest, here the patent, materialized. Stanford had only a expectancy that an assignment would be made, but that expectancy could not be met once the rights transferred to Cetus. To use an analogy, Stanford had only an engagement ring, a promise to marry, while Cetus had the wedding ring, an immediate marriage. But the Federal Circuit’s logic, as well as my analogy, ignores important elements. Stanford did have some expectations before Holodniy entered into the agreement with Cetus. The obligations to Stanford would be limitations on the Cetus agreement. It does not logically follow, nor is it a matter of correct policy, to conclude that Stanford’s interests were simply extinguished by the agreement with Cetus. To conclude that they were extinguished is to assume the answer to the conflict, not resolve it. In short, Justice Breyer is correct in questioning the Federal Circuit’s reasoning, and I hope a future case raises these problems squarely. In thinking ahead to such a case, I turn next to the issue of how to resolve the problem of conflicting patent assignments.

4. Alternative Resolutions to Stanford v. Roche

The Supreme Court, adopting the reasoning of the Federal Circuit, has instituted a new rule with respect to conflicting patent assignments. The rule can be stated as present assignments trump future assignments even if the present assignment is entered into after the future assignment. Justice Breyer finds this rule problematic for the reasons explained above. The challenging question is to derive an alternative, especially one that is consistent with precedent.

A simple alternative is to adopt a first in time rule, which would state that whichever assignment was entered into first trumps all subsequent assignments. While such a rule does exist in many other legal contexts, the problem with such a rule with respect to patent assignments is that not all assignments are identical. For example, an inventor might make two assignments, the first for all patent rights within the United States, the second for all patent rights in Japan. These two assignments do not conflict, and a first in time rule would not be necessary
to resolve the conflict. What this example shows is that a first in time rule might make sense if there is a direct conflict, meaning the two assignments cover the exact same set of rights. If an inventor assigns all patent rights to company A on Friday and then makes an assignment of exactly the same set of rights on Monday, a first in time rule would make sense. Under such a rule, all assignees need to make sure there is no conflict either by seeking disclosure from the patent assignor or by searching a recording system.

But what if the patent rights are not exactly the same? This divergence existed between the two assignments made by Holodniy. His assignment to Stanford was a promise to assign rights in future inventions in the future. His assignment to Cetus was a promise to assign rights in future inventions today. In both cases, the assignment would not be effective until the inventions came into being. But the second assignment includes rights going forward from today while the first assignment covers rights starting at some future date. The temporal duration of the rights being transferred differ, and therefore two obligations are not completely inconsistent. So a pure first in time rule would not appropriate for the reasons above, namely the two obligations could in theory be satisfied. The Federal Circuit adopted a rule that favored present assignments of future interests based on the logic of how the rights would transfer. The court reasoned that the transfer of rights to Cetus today would extinguish all of Stanford’s rights in future inventions. There is no reason, as a matter of logic, why such extinction has to occur. For example, Cetus’ rights could be deemed to be extinguished when Stanford’s rights spring up. The Federal Circuit seemingly chose a rule based on predictably and convenience, but there is a sense in which the court picked an arbitrary and unpredictable rule inconsistent with what came before.

To understand this inconsistency, it is worth introducing some dissent from within the Federal Circuit on the issue of patent assignments. Judge Pauline Newman has been the most vocal and persuasive in her criticism of Filmtec and other Federal Circuit decisions that build upon it. Her point is a simple one. Patent assignments are a matter of contract law, which is in the jurisdiction of the states. Therefore, the Federal Circuit should look more closely at state law in deciding cases about patent assignments. The judge’s point is particularly salient when one remembers that the Federal Circuit was created as an expert patent court. It was given jurisdiction to hear some non-patent matters when these matters are related to patent cases. Patent assignments are one obvious example of when the Federal Circuit has jurisdiction to consider state matters. But, as Judge Newman points out, jurisdiction to hear a case does not mean authority to create new law, as the Federal Circuit arguably did in Filmtec and in Stanford. Instead, the Federal Circuit should look to other authorities to address non-patent law matters. For contract law matters, what state courts and legislatures have said about assignments generally would be relevant. Furthermore, state law provides a stable and predictable source of authority for actors engaged in the business practice of negotiating patent assignments and other contracts.

The appeal to state law has historical justification. Justice Breyer, for example, cites a treatise on patent law by George Ticknor Curtis from 1873 that discusses patent assignments. Curtis addresses how state law treats assignments and cites a Massachusetts case from 1841 dealing with patent assignments. The fact that the 1841 case is from Massachusetts is important because it was decided by a state court, not a federal court like the Federal Circuit, to analyze a
patent assignment under Massachusetts state law. Relevant to the issues in Stanford, the assignment involved the present assignment of an invention that had not been made yet. The court analyzed the assignment as it would any contract, identifying the terms of the document as a key to the expectations of the parties. Further examples of state courts examining patent assignments come from the early jurisprudence of Justice Oliver Wendell Holmes. Prior to being appointed to the United States Supreme Court, Justice Holmes served on the Massachusetts Supreme Court, where many of his intellectual property cases involved precisely patent assignments. A separate research project of mine entails examining and synthesizing Justice Holmes’ intellectual property jurisprudence starting with his time on the Massachusetts Supreme Court.

There are two points to be gleaned from these examples. The first is that state law does include consideration of patent assignments. The second is that arguably the Federal Circuit has aggrandized its jurisdiction, using its expertise on patent law to create a new law of contract when patent assignments are concerned. State law precedents perhaps offer an alternative to the questionable Federal Circuit jurisprudence, at least with respect to patent assignments.

One related area in state law is that of security interests, a part of debtor-creditor law. In entering into credit agreements, creditors ask for security in the form of collateral for a loan. Sometimes the collateral can be tangible property that the debtor has in his possession. In such cases, the debtor may transfer the tangible property as a bond or put it in escrow, allowing the creditor to take title if the debtor defaults. Other times, the collateral may be intangible property that the debtor currently owns. Such intangible collateral falls under rules that are different from those for tangible property because of the difficulty of foreclosing on intangible property. Finally, the collateral may be something that is not in existence yet. An example would be the future sales or proceeds from a debtor’s business. Another example would be inventory remaining at the end of an accounting period. These future interests are analogous to the future inventions or patents that I have been discussing. Rights can be claimed in these properties that are nonexistent at the time of the contract formation between creditor and debtor.

Security interests provide the most common situation in which conflicting obligations arise. Debtors often take multiple mortgages, hypothetic future proceeds to multiple creditors, and take multiple loans out on the same collateral. As long as the value of the collateral can cover all the debts, then there is no problem in general. However, if not all creditors can be satisfied, priority rules are necessary. In the case of future interests, the law does not fall back on simple rules like first in time because there are multiple interests involved. A creditor does not want to run the risk of not receiving any return on the debt. The legal rules of priority allow the creditor to investigate the collateral and through such due diligence identify competing claimants on the collateral. Priority rules, consequently, depend not only on the timing of the contract, but also on recording and notice requirements.

The case of conflicting patent assignments bears some similarity to the law on intangible future interests in creditor-debtor law. Both entail rights in property that has yet to come into being. The main lesson from creditor-debtor law, which is largely a matter of state law, is that many interests are implicated and therefore simple rules are not satisfactory. The Federal Circuit has arguably adopted too simple and misguided a rule in the Stanford case, misapplying its
precedent in *Filmtec*. I have made the case that the issue of patent assignments will arise in future cases. Creditor-debtor law might provide the relevant precedent with which to organizes the law so as to take account of a range of interests, otherwise excluded through too simple a rule on patent assignments as we see in *Stanford*.

5. Practical Implications for Patent Licensing and Assignments

Although the facts of *Stanford v. Roche* arose in the context of biomedical research, the issues arise in many areas of university commercialization and across disciplines of engineering, biotechnology, and the physical sciences. Employee inventors often move across different institutions and have relationships with many, simultaneously. These relationships are invariably papered, and the paper documents include an invention assignment. How to reconcile these conflicting obligations? I end with some practical observations.

First, the Supreme Court has made clear that there are no special rules for entities receiving federally funded research with respect to the ownership and assignment of patent rights. Although there may be some chance that the Supreme Court may review its ruling and change it, that chance is minimal. The language of the Bayh-Dole Act speaks clearly on the issue, and so if there is to be a change, it would have to originate from Congress. What this means is that ownership will largely be a matter of contract law. Attention to the language of contracts is critical.

Second, the current rule adopted by the Supreme Court is to have special and specific language indicating that an assignment is a present transfer rather than a promise to transfer rights in the future. The word “hereby” seems to be a magical word for this result. University general counsel are working to redraft standard assignment agreements and cure problems created by alternative language. Most of the drafting issues will be handled by renegotiation, but there may be further litigation. If, as an employee, you are asked to resign a document, pay attention to what rights you may be signing away and any conflicts that may be created through multiple agreements.

Third, there was some dissatisfaction among the justices with the rule of conflicting patent assignments adopted by the Supreme Court. As I have shown in this article, there is reason for such dissatisfaction. Future litigation is likely especially with the vehemence of Judge Newman on the Federal Circuit questioning the court’s approach to patent assignments. This article has documented the issues and possible avenues for resolution. One needs to look out for new court rulings and the possibility of being an actual litigant in some of these disputes.

Finally, a possible future resolution to conflicting patent assignments is apparent from Figure Two. The conflicting obligations of Holodniy could have been resolved through negotiation between Stanford and Cetus before Holodniy began his training at the company. Stanford and Cetus could have agreed to share rights in any resulting inventions or worked out a form of royalty sharing with ownership resting in one of the two entities. Alternatively, one entity could have been granted ownership with the other receiving a royalty-free license. Such arrangements are quite common in benefit sharing agreements among entities, such as pharmaceutical companies and holders of traditional knowledge. It would be in the mutual benefit of both parties if some arrangement can be reached. Needless to say, the details,
particularly with respect to ownership, might be difficult to resolve. Furthermore, such negotiated agreements may be impossible as the number of conflicting assignments increase. Nonetheless, in small collaborative settings, such issues should be resolved, and the Supreme Court decision invites such negotiation.

A variation on the negotiated agreement is a form interinstitutional agreement that might arise in order to preempt conflicts. For example, an entity an make it explicit in the contract that the assignment trumps any existing or subsequent assignments. Disclosure requirements imposed on the employee might also address these problems by providing notice of conflicting assignments and of revocations of existing ones. Such creative drafting might provide important contractual solutions, even more salient than the state law solutions discussed in the previous section.

The Supreme Court addressed a prevalent and important problem in its *Stanford v. Roche*. But as is often the case, one decision paves the way for future litigation. We should expect to see such litigation, but this paper provides a preliminary roadmap for navigating the outstanding issues. Movement of employees is an important seed for transmitting and improving research. University-industry collaboration and crossover is a specific example of the broad benefits from employee movement and knowledge transmission. It is important for the courts to get the rules of patent assignments right in order to facilitate the process.

**B. The On Sale Bar and Contract Law**

**C. The Conditional Sale Doctrine Some Comparisons Between Generalized Courts and the Federal Circuit**

**IV. Reclaiming Intellectual Property Federalism**

[Note to reader: Here I will expand on the points from the end of my introduction by (1) expanding my discussion of Gilson, Sabel, and Scott in the context of the cases from Section III, (2) expanding on the discussion of Cherminsky and Goldstein from the end of the introduction with a focus on the identified four policies of IP federalism, and (3) suggesting ways to reform existing doctrine and case analysis in the three areas discussed in Section III.]

**V. Conclusion**