

United States Court of Appeals for the Federal Circuit

02-1018, -1019

THE REGENTS OF THE UNIVERSITY OF NEW MEXICO,
Plaintiff-Appellee,

v.

GALEN D. KNIGHT,
Defendant -Appellant,

and

TERENCE J. SCALLEN,
Defendant -Appellant.

02-1310, -1311

THE REGENTS OF THE UNIVERSITY OF NEW MEXICO,
Plaintiff-Appellee,

v.

GALEN D. KNIGHT,
Defendant -Appellant,

and

TERENCE J. SCALLEN,
Defendant -Appellant.

Paul Adams, Peacock, Myers & Adams, P.C., of Albuquerque, New Mexico, for plaintiff-appellee. With him on the brief was Stephen A. Slusher.

Galen D. Knight, Ph.D., of Albuquerque, New Mexico, pro se.

Terence J. Scallen, M.D., Ph.D., of Borrego Springs, California, pro se.

Appealed from: United States District Court for the District of New Mexico

Senior Judge John E. Conway

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DECIDED: February 28, 2003

Before NEWMAN, LOURIE, and SCHALL, Circuit Judges.

LOURIE, Circuit Judge.

Galen D. Knight and Terence J. Scallen separately appeal from the decisions and orders of the United States District Court for the District of New Mexico: granting the Regents of the University of New Mexico (“UNM”) summary judgment that UNM is the owner of seven patents and patent applications relating to beta -alethine compounds, Regents of the Univ. of N.M. v. Knight, No. CIV 99-577, slip op. at 2 (D.N.M. Aug. 9, 2000) (“Count II Summary Judgment”); declaring UNM to be the owner of eleven patents and patent applications relating to vitaletheine compounds, Regents of the Univ. of N.M. v. Knight, No. CIV 99-577, slip op. at 3-4 (D.N.M. Sept. 10, 2001) (“Final Order”); granting UNM summary judgment that Scallen and Knight breached their contractual obligation to assign the beta-alethine and vitaletheine patents and applications to UNM, Regents of the Univ. of N.M. v. Knight, No. CIV 99-577, slip op. at 2-3 (D.N.M. Jan. 29, 2001) (“Count IV Summary Judgment”); dismissing Scallen and Knight ’s counterclaims as barred by the Eleventh Amendment, Regents of the Univ. of N.M. v. Knight, No. CIV 99-577, slip op. at 5 (D.N.M. Feb. 27, 2001) (“Dismissal of Counterclaims”); appointing a special master, Regents of the Univ. of N.M. v. Knight, No. CIV 99-577, slip op. at 1 (D.N.M. Mar. 21, 2000) (“Special Master”); and awarding costs and the special master’s fee to UNM, Final Order at 5. We affirm -in-part, reverse-in-part, vacate-in-part, and remand.

BACKGROUND

Dr. Scallen was a professor of biochemistry and medicine at UNM. Dr. Knight was hired as a faculty staff member in Scallen’s laboratory. From 1983 to 1985, Scallen, Knight, and Dr. Paul Mann engaged in cancer research that led to inventions relating to beta -alethine and vitaletheine. UNM filed five patent applications based on those inventions on July 6, 1990. Two of those applications were directed to methods for using beta-alethine compounds to treat cancer;[1] three were directed to vitaletheine modulators and methods for their use.[2] The inventors executed declarations, powers of attorney, and small business entity verifications for each of the applications. In 1991, Scallen, Knight, and Mann assigned the two beta-alethine applications to UNM, and Scallen and Knight assigned the three vitaletheine applications to UNM. On April 4, 1991, Scallen and Knight signed a UNM Co-Inventor Agreement relating to the vitaletheine inventions.[3]

In 1992, UNM filed five continuation-in-part (“CIP”) applications,[4] one from each of the 1990 parent applications. The inventors again executed declarations, powers of attorney, and small business entity verifications for the CIP applications. Mann eventually assigned the two beta-alethine CIP applications to UNM; Scallen and Knight never assigned any of the CIP applications to UNM.

In February 1994, the funding for Scallen’s laboratory was lost and Knight’s employment was terminated. Approximately six months later, UNM entered into an agreement with Dovetail Technologies, Inc., whereby UNM granted a

worldwide exclusive license to Dovetail for the beta-alethine and vitaletheine inventions and warranted that UNM is the owner of the related patents and applications. Dovetail then contracted with a company referred to as Hauser to synthesize the compounds relating to the vitaletheine inventions. Dr. Christopher Murray, Hauser's Director of Chemical Processing Services, determined that the vitaletheine compounds could not be synthesized as described by Scallen and Knight and concluded that two chemical structures in the vitaletheine applications were incorrect. UNM then retained Dr. Shield Wallace of Professional Analysis, Inc. to synthesize and characterize the compounds disclosed in the vitaletheine applications. He, too, concluded that two of the structures in the applications were incorrect. Murray and Wallace determined what they considered to be the correct structures of the compounds, and UNM submitted to the U.S. Patent and Trademark Office ("PTO") amendments changing Scallen and Knight's "vitaltheine V₄" and "benzyl derivative of vitaletheine" structures in the vitaletheine applications to the structures for beta-alanyl-aurine and carbobenzoxy beta-alanyl-aurine, respectively. Scallen and Knight objected to those amendments, both to UNM and to the PTO, but they were accepted by the PTO as not being directed to new matter.

Scallen retired in September 1995 and worked part-time through June 1996. In 1999, Dovetail notified UNM that it was in breach of the warranty of ownership provision of their license agreement. UNM considered that alleged breach to be based on Scallen and Knight's refusal to assign to UNM their rights in the CIP applications. On May 21, 1999, UNM accordingly filed suit against Scallen and Knight, seeking declaratory, injunctive, and monetary relief on various patent and state law claims. Count I of UNM's complaint sought a declaration of ownership of the vitaletheine patents and applications. Count II sought a declaration of ownership of the beta-alethine patents and applications. Count III sought a declaration and, if necessary, correction of the inventorship of U.S. Patents 5,370,868 and 5,578,313, both directed to methods for using vitaletheine modulators. Count IV alleged breaches of the UNM Intellectual Property Policy and the Co-Inventor Agreement. Count V alleged intentional interference with the Dovetail license agreement. Count VI alleged conversion or, in the alternative, replevin. Count VII alleged slander of title.

Scallen and Knight, acting pro se, each filed counterclaims against UNM. Scallen sought money damages for UNM's breach of its duties of care, good faith, and fair dealing. Scallen also sought a declaration determining his rights in the beta-alethine and vitaletheine inventions and patents. Knight filed counterclaims for various contract and tort actions, including breach of contract, intentional interference with prospective economic advantage, abuse of process, slander, and breach of fiduciary duty. Knight sought a declaration of ownership of the beta-alethine and vitaletheine patents and applications as well as monetary relief for withheld royalties and lost wages.

Because of the "technical nature" of the case, the district court sua sponte appointed as special master Ray Regan, a patent attorney, to evaluate all pending and future motions. Special Master at 1. The court instructed UNM to pay Regan's compensation initially, but indicated that the losing party would ultimately be responsible for Regan's compensation. Id.

On May 31, 2000, the special master issued his first report, which included findings of fact, conclusions of law, and recommendations pertaining to ownership of the beta-alethine patents and applications (i.e., Count II). Regents of the Univ. of N.M. v. Knight, No. CIV 99-0577 (D.N.M. May 31, 2000) (“First Special Master’s Report”). The special master found, inter alia, that Scallen and Knight had assigned the beta-alethine parent applications to UNM and that they had refused to sign subsequent assignments because they disagreed with UNM’s prosecution of the vitaletheine applications. Id. at 20-21. Based on a review of the 1991 Joint Assignments, the 1983 UNM Patent Policy, the powers of attorney, and the inventors’ declarations claiming small entity status, the special master concluded that there were no genuine issues of material fact and that Scallen and Knight were obligated to assign the beta-alethine patents and applications to UNM. Id. at 20-23. Upon conducting a de novo review of the special master’s report, the court adopted the special master’s recommendations in their entirety and granted summary judgment to UNM on Count II. Count II Summary Judgment at 2-3. The court directed Scallen and Knight to execute an assignment of the beta-alethine patents and applications to UNM. Id. at 2.

On September 20, 2000, the special master issued a second report, which addressed the breach of contract claim (i.e., Count IV). Regents of the Univ. of N.M. v. Knight, No. CIV 99-0577 (D.N.M. Sept. 20, 2000) (“Second Special Master’s Report”). The special master found that neither defendant had shown the existence of a genuine issue of material fact and that Scallen and Knight had breached their agreements with UNM by not executing assignments of the beta-alethine patents and applications. Id. at 28. Again, the court adopted the report in its entirety and entered summary judgment in favor of UNM on Count IV. Count IV Summary Judgment at 2-3.

The court then granted UNM’s motion to amend its complaint, allowing UNM to withdraw any request for money damages. Dismissal of Counterclaims at 2-3. The court observed that UNM, as an arm of the state, was entitled to Eleventh Amendment immunity, but noted that by filing suit UNM had waived its immunity from claims in recoupment arising out of the same transaction or occurrence as its claims. Id. at 3. Because UNM’s amended complaint now sought only declaratory and injunctive relief, the court found that Scallen and Knight’s counterclaims for money damages were no longer claims in recoupment. Id. at 4. The court therefore dismissed Scallen and Knight’s counterclaims as barred by the Eleventh Amendment. Id. The court later granted UNM’s motion to dismiss Counts V, VI, and VII. Regents of the Univ. of N.M. v. Knight, No. CIV 99-577 (D.N.M. June 19, 2001).

After a bench trial limited to issues dealing with the vitaletheine patents and applications, the court issued its findings of fact and conclusions of law. Regents of the Univ. of N.M. v. Knight, No. CIV 99-577 (D.N.M. Sept. 10, 2001). First, the court found that the organic compounds described in the parent and CIP applications inherently had the structures of the amendments. Id. at 13. Relying on a presumption that the PTO had correctly determined that the amendments did not introduce new matter, the court concluded that the amendments did not violate 35 U.S.C. § 132. Id. at 14. Secondly, the court found that Scallen and Knight had failed to prove by clear and convincing evidence that U.S. Patent 6,096,536 and the

'313 patent are invalid. Id. at 15. Third, the court concluded that UNM is the owner of the vitaletheine patents and applications (i.e., Count I), and fourth, the court concluded that Scallen and Knight are the only, joint, and properly named inventors of the vitaletheine patents and applications (i.e., Count III). Id.

On September 10, 2001, the court issued its final order. In that order the court declared UNM to be the owner of the beta-alethine and vitaletheine patents and applications, Final Order at 1-4; declared that no new matter had been added to the vitaletheine applications by amendment to the claimed structures, id. at 4; declared that Scallen and Knight are the only and joint inventors of the vitaletheine patents and applications, id. at 5; and ordered Scallen and Knight to reimburse UNM for the special master's fees and to pay UNM's costs, id.

Scallen and Knight timely appealed, and Counts I-IV are before us. We have chosen to address Scallen and Knight's appeals with respect to both the merits and the award of costs and fees in this one opinion. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

We review a district court's grant of summary judgment de novo, reapplying the same standard used by the district court. Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp., 149 F.3d 1309, 1315, 47 USPQ2d 1272, 1275 (Fed. Cir. 1998). Summary judgment is appropriate "if 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 moving party is entitled to a judgment as a matter of law." Fed. R. Civ. P. 56(c). "The evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in his favor." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986).

In deciding issues not unique to our exclusive jurisdiction, we apply the law of the regional circuit in which the district court sits — here, the Tenth Circuit. See Midwest Indus., Inc. v. Karavan Trailers Inc., 175 F.3d 1356, 1359, 50 USPQ2d 1672, 1675 (Fed. Cir. 1999) (en banc in relevant part). We review the district court's decisions on state law issues under the applicable state law — here, that of New Mexico. See Univ. of W. Va. v. VanVoorhies, 278 F.3d 1288, 1296, 61 USPQ2d 1449, 1453 (Fed. Cir. 2002).

A. Breach of Contract

On appeal, Scallen and Knight argue that the district court erred in concluding that they breached their contracts with UNM. They assert that UNM's misrepresentation of its ownership of the beta-alethine and vitaletheine inventions prevented the formation of a valid contract. Specifically, Scallen and Knight contend that UNM's claim of initial ownership of the inventions is contrary to the U.S. Constitution, 35 U.S.C. § 261, and case law holding that inventions and patents belong to the inventor unless and until they are assigned to another. Scallen also argues that, even if valid, neither the UNM Patent Policy nor his employment contract mentions assignment by the inventor. Thus, Scallen and Knight assert that they have no contractual obligation to assign their inventions to UNM.

UNM responds that Scallen and Knight are contractually obligated to assign the beta-alethine and vitaltheine patents and applications to UNM. UNM asserts that that obligation arises from employment contracts, the UNM Patent Policy, and co-inventor agreements, which acknowledge UNM's ownership of the inventions. UNM argues that the Patent Policy's statement that "such inventions and discoveries belong to the University" obligates the inventors to transfer ownership of the inventions to UNM, even without use of the word "assign." UNM further argues that Scallen and Knight's conduct, including their submission of invention disclosures, their 1991 assignments of the parent applications, and their compliance with other terms of the Patent Policy, confirms the existence of an obligation to assign.

State law governs contractual obligations and transfers of property rights, including those relating to patents. See Jim Arnold Corp. v. Hydrotech Sys., Inc., 109 F.3d 1567, 1572, 42 USPQ2d 1119, 1123 (Fed. Cir. 1997). Accordingly, we apply New Mexico state law to UNM's breach of contract claim.

Both Scallen and Knight are bound by the UNM Patent Policy. Each year Scallen and UNM entered into a written faculty contract, which, at the times relevant here, incorporated the 1983 UNM Patent Policy contained in the Faculty Handbook.^[5] The Patent Policy's terms and conditions broadly apply to all "staff members," which includes "any faculty member, student, or any other person associated with the teaching or research staffs of the University." That certainly includes Scallen, who was a faculty member. Although Knight, as a faculty staff member, had no employment contract with UNM, he too was bound by the Patent Policy. Under New Mexico law, a written personnel policy may form an implied employment contract. E.g., Garcia v. Middle Rio Grande Conservancy Dist., 918 P.2d 7, 10-11 (N.M. 1996); Forrester v. Parker, 606 P.2d 191, 192 (N.M. 1980). The 1983 UNM Patent Policy thus created an implied contract between Knight and UNM that governed the relationship between Knight and UNM. Thus, we agree with the district court's conclusion that both Scallen and Knight were bound by the Patent Policy.

Scallen contests the Patent Policy's validity on the ground that UNM misrepresented its initial ownership of the inventions. His point is that 35 U.S.C. § 261 vests ownership of a patent in an inventor and that the Patent Policy cannot override the statute. While Scallen is correct that initial ownership of a patent vests in the inventor by operation of law, Beech Aircraft Corp. v. EDO Corp., 990 F.2d 1237, 1248, 26 USPQ2d 1572, 1582 (Fed. Cir. 1993), § 261 provides that inventors can assign all or part of their interest in a patent. Scallen and Knight did so in the Joint Assignments and agreed to do so in the Co-Inventor Agreement. The Co-Inventor Agreement, signed by Scallen and Knight on April 4, 1991, refers to the inventions described in the three vitaltheine parent applications. The parties also acknowledge a similar Co-Inventor Agreement that was executed for the inventions described in the two beta-alethine parent applications. In addition, Scallen and Knight executed five Joint Assignments in 1991, assigning the five parent applications to UNM.

Having held that Scallen and Knight were bound by the applicable contracts, we turn now to the content of those agreements. The Patent Policy provides:

All staff members who make inventions or discoveries (i) in the course of research carried out under their direction and having all or any part of the cost paid from University funds . . . , or (ii) which are the direct result of their duties with the University, or (iii) which are made, in whole or in part, using University resources or facilities, shall disclose to the President all such inventions and discoveries. . . . [S]uch inventions and discoveries belong to the University.

. . . Each staff member who makes an invention or discovery covered by parts (i), (ii), or (iii) . . . has a duty to cooperate fully with the University, or such other party as may be designated by the University . . . in all reasonable and lawful acts required to permit full exploitation of the invention or discovery. Such cooperation shall include . . . providing information needed for preparation of patent applications and associated documents [and] review and signing of patent applications and associated documents

(emphases added). Similarly, the Co-Inventor Agreement states that “the University is the owner of the Inventions.”^[6] It continues: “The Inventors [and the University] shall cooperate with each other in the timely and responsive preparation and review of material relating to the Invention, to the prosecution of patent applications and the obtaining of patents thereon, and to the development or exploitation of the Invention,” and according to the five Joint Assignments, Scallen and Knight did “sell, assign, and transfer unto [UNM] all right, title, and interest” in the inventions, in any patents that may issue from those inventions, and “in and to any and all divisions, reissues, continuations, and extensions thereof.” The Joint Assignments further require Scallen and Knight “to sign all lawful papers, to execute all divisions, continuations, substitutions, renewal, and reissue applications, [and] to execute all necessary assignment papers to cause any and all of said Patents to be issued to [UNM].”

We thus agree with UNM as to the contractual obligations that arose from the Patent Policy, the Co-Inventor Agreement, and the Joint Assignments. The Patent Policy’s statement that the inventions “belong to” UNM and the Co-Inventor Agreement’s statement that UNM “is the owner” of the inventions evince the parties’ clear intent that UNM would own the inventions. The Joint Assignments expressly vest ownership of the parent applications in UNM. Furthermore, all of those documents imposed upon Scallen and Knight a continuing duty to cooperate in the prosecution of patent applications, which expressly includes “signing . . . patent applications and associated documents” and “execut[ing] all necessary assignment papers.” We find the broad language contained in the Patent Policy, the Co-Inventor Agreement, and the Joint Assignments more than sufficient to obligate Scallen and Knight to assign to UNM their beta-alethine and vitalethine inventions and all related patents and applications, including the CIP applications. See Univ. of W. Va., 278 F.3d at 1298, 61 USPQ2d at 1454-55 (recognizing a student’s obligation to assign an invention to a university based on a policy providing that the university owns all inventions that are made by university personnel or made with substantial use of university resources); Chou v. Univ. of Chi., 254 F.3d 1347, 1357, 59 USPQ2d 1257, 1261 (Fed. Cir. 2001) (concluding, under Illinois law, that a graduate student was obligated to assign her inventions to the university under its patent policy even absent a signed contract requiring such assignment).

Moreover, both Scallen and Knight acted as though they intended to be bound by the Patent Policy. Scallen and Knight, who had assigned earlier unrelated inventions to UNM, do not suggest that they were unaware of the Patent Policy. On the contrary, they acted in accordance with the terms and conditions of the Patent Policy and the Co-Inventor Agreement: for example, they submitted invention disclosure statements to UNM in 1986, and they assigned the five parent applications

to UNM in 1991. It was not until a dispute concerning the prosecution of the vitaletheine applications arose that Scallen and Knight refused to cooperate with UNM. Until that point, Scallen and Knight had acted as though they were obligated to assign their inventions to UNM and to cooperate in the prosecution of related patent applications.

Based on the language of the Patent Policy, the Co-Inventor Agreement, and the Joint Assignments, as well as Scallen and Knight's conduct, we conclude that Scallen and Knight were contractually obligated to assign to UNM the beta-alethine and vitaletheine inventions, including all related patents and applications, and to cooperate in the prosecution of those applications. It is not disputed that Scallen and Knight refused to assign the CIP applications to UNM. Thus, there is no genuine issue of material fact and it is clear that they have violated their contractual obligation to assign the beta-alethine and vitaletheine inventions, including all related patents and applications, to UNM. We therefore conclude that the district court did not err in granting summary judgment in favor of UNM on Count IV.

B. Ownership

Scallen and Knight make other arguments that they are the rightful owners of the beta-alethine and vitaletheine patents and applications. In addition to denying that he and Knight had any contractual obligation to assign their inventions to UNM, Scallen argues that he and Knight are the rightful owners of the 1992 CIP applications because the Manual of Patent Examining Procedure ("MPEP") § 306 requires new assignments for CIP applications. Additionally, Scallen and Knight accuse UNM of inequitable conduct, arguing that UNM did not have power of attorney from the inventors to prosecute the patents and that UNM unlawfully used Scallen and Knight's 1992 inventor declarations to support the amendments changing the structures in the vitaletheine applications.

UNM responds that it either is the owner or is entitled to be the owner of the beta-alethine and vitaletheine patents and applications because Scallen and Knight were contractually obligated to assign their inventions to UNM.

1. The Beta-Alethine Patents and Applications

We agree with UNM that the district court did not err in granting summary judgment that UNM is the owner or is entitled to ownership of the beta-alethine patents and applications. As discussed above, Scallen and Knight were contractually obligated to assign the patents and applications to UNM. UNM is therefore entitled to be the rightful owner of the beta-alethine patents and applications.

Scallen and Knight's further arguments to the contrary are without merit. First, we reject Scallen and Knight's claim of ownership based on the argument that MPEP § 306 requires new assignments for CIP applications. The MPEP sets forth PTO procedures; it is not a statement of law. Molins PLC v. Textron, Inc., 48 F.3d 1172, 1180 n.10, 33 USPQ2d 1823, 1828 n.10 (Fed. Cir. 1995). Moreover, MPEP § 306 refers to a PTO requirement for issuing a patent from a CIP application to an assignee; it does not alter the legal ownership rights in patent applications and issued patents. Secondly, Scallen and Knight have not put forth any evidence of inequitable conduct in UNM's prosecution of the patent applications, which is what would be relevant to inequitable conduct. In any event, even if inequitable conduct before the PTO were proved, it would not affect UNM's right to the patents and applications as against Scallen and Knight, but would affect only their enforceability. Univ. of W. Va., 278 F.3d at 1301-02, 61 USPQ2d at 1457. Scallen and Knight have thus failed to show any genuine issue of material fact that UNM's claim of ownership of the beta-alethine patents and applications is flawed. We therefore conclude that the district court did not err in declaring UNM to be entitled to ownership of the beta-alethine patents and applications or in granting summary judgment to UNM on Count II.

2. The Vitaletheine Patents and Applications

With respect to the vitaletheine inventions, Scallen and Knight deny that they are the inventors of the subject matter in the patents and applications because UNM allegedly added new matter to the CIP applications during prosecution by amending the chemical structures of two compounds. Scallen and Knight argue that Murray and Wallace synthesized the compounds in a manner different from that prescribed by Scallen and Knight, that the chemical and physical characteristics of the original compounds differ from those of the amended compounds, and that the original and amended compounds differ in biological efficacy. Scallen and Knight thus argue that they have no duty to assign what they did not invent and that the '313 and '536 patents, which contain the amended structures, are invalid.

UNM responds that the district court correctly determined that no new matter was added by amendment in the vitaletheine applications, arguing that a structural formula may be corrected without violation of 35 U.S.C. § 132 if there is sufficient evidence to show that the added structure is an inherent and more accurate description of the disclosed subject matter. UNM further argues that substantial evidence supports the court's detailed factual findings that Murray and Wallace followed the exact method of synthesis disclosed in the patent applications and determined the correct structures for the two vitaletheine compounds. UNM also adverts to the presumptions of correctness and validity arising from, respectively, the PTO's determination that the amendments did not add new matter and its issuance of the '313 and '536 patents.

We agree with UNM that the district court did not err in declaring UNM to be entitled to ownership of the vitaletheine patents and applications. As assignee of the vitaletheine inventions, UNM was entitled to prosecute the applications and to make amendments during prosecution. Scallen and Knight were contractually obligated to assist UNM in the prosecution of any and all patent applications relating to their inventions. Their refusal to do so did not impair UNM's right to continue prosecution. Accordingly, UNM acted reasonably in relying on Murray and Wallace, both experts in organic chemistry, to verify the accuracy of the descriptions of the inventions as disclosed in the patent applications and amendments. As the district court found based on the evidence before it, Murray and Wallace synthesized the vitaletheine compounds according to Scallen and Knight's descriptions before concluding that two of Scallen and Knight's chemical structures were incorrect.

UNM's subsequent amendments to the vitaletheine applications, based on Murray and Wallace's corrected structures, did not alter the inventorship or ownership rights in those applications and the resulting patents. The amendments did not describe different inventions; they only clarified and corrected the erroneous characterization of the already disclosed inventions.

Such amendments do not add to or change the nature of the disclosed inventions. As one of our predecessor courts wrote:

From the standpoint of patent law, a compound and all of its properties are inseparable; they are one and the same thing. The graphic formulae, and the chemical nomenclature, the systems of classification and study such as the concepts of homology, isomerism, etc., are mere symbols by which compounds can be identified, classified, and compared. But a formula is not a compound and while it may serve in a claim to identify what is being patented, as the metes and bounds of a deed identify a plot of land, the thing that is patented is not the formula but the compound identified by it.

In re Papesch, 315 F.2d 381, 391, 137 USPQ 43, 51 (CCPA 1963). Indeed, a chemical structure is simply a means of describing a compound; it is not the invention itself. In the patents and applications at issue, the “vitaltheine V₄” and “benzyl derivative of vitaltheine” structures were Scallen and Knight’s means of identifying their inventions in a manner that would be understood by others of skill in the art. The amendments changing those structures to the structures for beta-alanyl-taurine and carbobenzoxy beta-alanyl-taurine therefore did not alter the claimed inventions. Rather, they amended the specifications and claims to describe Scallen and Knight’s inventions more accurately. [7] Such amendments are not new matter, and the district court did not err in its holding to that effect.

Thus, the amendments to the vitaltheine applications do not change the fact that Scallen and Knight are the inventors of the claimed inventions. Nor do they change the fact that UNM is entitled to own the vitaltheine inventions, applications, and patents, which Scallen and Knight were contractually obligated to assign. We therefore conclude that the district court did not err in declaring Scallen and Knight to be the inventors of the vitaltheine inventions (*i.e.*, Count III) or in declaring UNM to be the owner of the vitaltheine patents and applications (*i.e.*, Count I).

C. The Eleventh Amendment

On appeal, Scallen and Knight argue that the district court erred in allowing UNM to withdraw its claims for money damages and in subsequently dismissing their counterclaims. Scallen and Knight assert that UNM waived its Eleventh Amendment immunity as to any claims in recoupment when it filed suit with claims for money damages. They contend that there is no legal authority to support the restoration of UNM’s previously waived immunity upon UNM’s dismissal of its claims for money damages.

UNM responds that the district court properly granted UNM’s motion to dismiss Scallen and Knight’s counterclaims. It argues that it has not waived its Eleventh Amendment immunity from money damages by filing suit because it now seeks only declaratory and injunctive relief. UNM also argues that the issue as to whether the court properly allowed UNM to amend its complaint is moot because the court did not award any money damages to UNM and consequently Scallen and Knight had no damages to recoup. UNM further argues that the court did not abuse its discretion in allowing UNM to amend its complaint and that UNM’s claim for attorney fees and costs did not waive its immunity for damages.

1. UNM’s Withdrawal of Its Request for Money Damages

We agree with UNM that the district court did not abuse its discretion in permitting amendment of the complaint to withdraw any request for money damages. We apply regional circuit law to a trial court’s procedural decisions that relate to issues not unique to our exclusive jurisdiction. See Midwest Indus., 175 F.3d at 1359, 50 USPQ2d at 1675. Under Tenth Circuit law, a trial court’s grant of leave to amend a pleading is reviewed for an abuse of discretion. Gillette v. Tansy, 17 F.3d 308, 312 (10th Cir. 1994). Federal Rule of Civil Procedure 15(a) provides that leave to amend a pleading “shall be freely given when justice so requires.” Under Tenth Circuit law, a court should generally deny leave to amend only upon a showing of “undue delay, undue prejudice to the opposing party, bad faith or dilatory motive, failure to cure deficiencies by amendments previously allowed, or futility of amendment.” Frank v. U.S. West, Inc., 3 F.3d 1357, 1365 (10th Cir. 1993) (citation omitted). None of those grounds exists here. The court’s permission for UNM to withdraw its claims for monetary relief in fact supports the public interest in reducing litigation. We therefore conclude that the court did not abuse its discretion in granting UNM leave to amend its complaint.

2. Dismissal of Counterclaims

Before reviewing the district court’s dismissal of Scallen and Knight’s counterclaims for money damages, we must first determine whether to apply Tenth Circuit law or Federal Circuit law to the question of UNM’s Eleventh Amendment waiver. Keeping in mind the policy interests both in “bring[ing] about uniformity in the area of patent law” and in

“minimizing confusion and conflicts in the federal judicial system,” Manildra Milling Corp. v. Ogilvie Mills, Inc., 76 F.3d 1178, 1181, 37 USPQ2d 1707, 1709 (Fed. Cir. 1996) (citations omitted), we resolve the issue by deciding that the question of Eleventh Amendment waiver is a matter of Federal Circuit law. We do so because the goal of promoting national uniformity in patent law would best be served by applying our own law. Were we to apply regional circuit law, the counterclaims that a defendant in a state-initiated patent suit would be entitled to assert, and for which the state would be potentially liable, might vary with the regional circuit in which the case originated. Application of our own law, however, would ensure uniformity concerning which counterclaims may be asserted against a state that seeks to litigate its patent rights in federal court. In fact, as discussed below, there is a noted lack of uniformity among the regional circuits regarding the scope of a state’s Eleventh Amendment waiver through litigation conduct. Applying our own law would ensure uniformity when patent issues are litigated. In light of these considerations, we hold that the issue of Eleventh Amendment waiver before us is a matter of Federal Circuit law. We apply a de novo standard of review to this question of law.^[8]

Turning to the merits, we conclude that the court erred in dismissing all of Scallen and Knight’s counterclaims for money damages on the ground of the Eleventh Amendment. The district court noted, and the parties do not dispute, that UNM is considered to be an “arm of the state” and therefore is generally entitled to Eleventh Amendment immunity. Dismissal of Counterclaims at 3 (citing Buchwald v. University of New Mexico School of Medicine, 159 F.3d 487, 494 n.3 (10th Cir. 1998)). However, it has long been established that a state waives its Eleventh Amendment immunity when it consents to federal court jurisdiction by voluntarily appearing in federal court. Clark v. Barnard, 108 U.S. 436, 447 (1883); see also Gunter v. Atl. Coast Line R.R., 200 U.S. 273, 284 (1906) (“[W]here a State voluntarily becomes a party to a cause and submits its rights for judicial determination, it will be bound thereby and cannot escape the result of its own voluntary act by invoking the prohibition of the Eleventh Amendment.” (citation omitted)). As UNM unmistakably consented to federal court jurisdiction when it filed suit against Scallen and Knight, the question before us is the extent to which UNM waived its Eleventh Amendment immunity by that action.

UNM argues that the district court correctly determined that UNM waived its immunity only with respect to counterclaims in recoupment, *i.e.*, counterclaims that arise from the same transaction or occurrence as the state’s claims, seek relief of the “same kind or nature” as do the state’s claims, and seek an amount not greater than the amount sought in the state’s claims. See Dismissal of Counterclaims at 3 (citation omitted).^[9] We do not agree; UNM did waive its immunity at least with respect to certain of the counterclaims at issue here.

The first question we must resolve, however, is whether recoupment is the best criterion for determining the extent of waiver. Although some courts have applied the recoupment theory to a state’s waiver of its Eleventh Amendment immunity, see, e.g., In re Friendship Med. Ctr., Ltd., 710 F.2d 1297, 1301 (7th Cir. 1983); see also 3 James Wm. Moore, Moore’s Federal Practice § 13.50[4] (3d ed. 2002) (collecting district court cases), other courts have deemed that a state that voluntarily appears in federal court has waived its immunity for all compulsory counterclaims, see, e.g., In re Lazar, 237 F.3d 967, 978 (9th Cir. 2001); In re Creative Goldsmiths of Wash., D.C., Inc., 119 F.3d 1140, 1149 (4th Cir. 1997). For the reasons discussed below, we think that the latter position is the better view.^[10]

The range of compulsory counterclaims is broader than counterclaims in recoupment, which are a subset of compulsory counterclaims. Recoupment counterclaims are limited to counterclaims of the “same kind or nature” and, if monetary, are limited to the amount of the principal claims against which they constitute recoupment. FDIC v. Hulsey, 22 F.3d 1472, 1487 (10th Cir. 1994). However, compulsory counterclaims, while being limited to those that arise from the same transaction or occurrence, allow for adjudication of counterclaims that are not strictly of the “same kind or nature,” but should be litigated together. In particular, counterclaims for royalties under an agreement relating to patents should be litigated in the same cause of action as a claim for a declaration of ownership of those patents, and the state should be considered to have consented to such.

Recently, in Lapides v. Board of Regents of the University System of Georgia, 122 S. Ct. 1640 (2002), the Supreme Court addressed the inconsistency and unfairness that could result from allowing a state that voluntarily avails itself of the federal courts to simultaneously claim immunity under the Eleventh Amendment.^[11] The Court explained:

It would seem anomalous or inconsistent for a State both (1) to invoke federal jurisdiction, thereby contending that the “Judicial power of the United States” extends to the case at hand, and (2) to claim Eleventh Amendment immunity, thereby denying that the “Judicial power of the United States” extends to the case at hand. And a Constitution that permitted States to follow their litigation interests by freely asserting both claims in the same case could generate seriously unfair results.

Id. at 1643.

That rationale applies to the facts of the present case, in which “seriously unfair results” could obtain if a state were permitted to file suit in federal court seeking to enforce a right to ownership of patents arising from certain contractual agreements and conduct and, at the same time, to claim immunity from liability for royalties or other compensation arising from those same contracts and conduct. While such counterclaims might not be of the “same kind or nature” as a claim to ownership of the patents, they surely would be compulsory counterclaims. Thus, at least under the facts of this case, the compulsory counterclaim criterion is superior to the recoupment criterion for determining waiver of immunity with respect to counterclaims. Moreover, because a state as plaintiff can surely anticipate that a defendant will have to file any compulsory counterclaims or be forever barred from doing so, it is not unreasonable to view the state as having consented to such counterclaims. We thus hold that when a state files suit in federal court to enforce its claims to certain patents, the state shall be considered to have consented to have litigated in the same forum all compulsory counterclaims, *i.e.*, those arising from the same transaction or occurrence that gave rise to the state’s asserted claims. Accordingly, we conclude that by filing suit for a declaration of patent ownership and inventorship based on certain contracts and conduct, UNM waived its Eleventh Amendment immunity with respect to all compulsory counterclaims arising from those contracts and conduct.

We next consider the question of which of Scallen and Knight’s counterclaims for money damages are compulsory. To begin with, as indicated above, both UNM’s right to patent ownership and the inventors’ right to any royalties that may be due from the patents at issue clearly arise from the same transaction or occurrence, *viz.*, the assignment of the patent rights. Specifically, the UNM Patent Policy, which provides that UNM is the owner of the inventions and patents at issue, also states that the inventors “shall receive a percentage of any income which the University obtains from the exploitation of the invention, such percentage to be determined by negotiation between the President [of UNM] and the inventor[s].” Because Knight’s counterclaim for royalties arises from the same contracts on which UNM’s claim of patent ownership is based, that counterclaim is compulsory. We thus conclude that the district court improperly dismissed Knight’s counterclaim for royalties as barred by the Eleventh Amendment; accordingly, we reverse that decision.

With regard to the other counterclaims for money damages advanced by Scallen and Knight, they apparently include Scallen’s counterclaims for breach of the duties of care, good faith, and fair dealing; breach of duty; and damages resulting from the conduct, acts, and omissions of UNM; as well as Knight’s counterclaims for breach of contract; intentional interference with prospective economic advantage; malicious abuse of process; slander of inventorship; and breach of fiduciary duty. Because of the lack of specificity in these *pro se* pleadings and the minimal discussion of the counterclaims in the record, we are unable to discern with confidence which of them are compulsory. Therefore, recognizing the *pro se* status of Scallen and Knight and in order to ensure that the interests of justice are served, we vacate the district court’s dismissal of those counterclaims and remand for the court to determine which counterclaims arise from the same transaction or occurrence as do UNM’s claims for breach of contract, declaration of patent ownership, and declaration of inventorship. Those that the court determines to be compulsory counterclaims should not be barred by the Eleventh Amendment. Only those counterclaims that are not compulsory should be dismissed. Scallen and Knight are admonished, however, to be precise in indicating to the district court how they were damaged by actions or inactions arising from the same transactions. None of the above should preclude the district court from dismissing any counterclaims on proper grounds other than the Eleventh Amendment.

In sum, we reverse the district court’s Eleventh Amendment dismissal of Knight’s counterclaim for royalties. We vacate the court’s dismissal of Scallen and Knight’s other counterclaims for money damages, and we remand for the district court to determine which, if any, of those counterclaims are compulsory in adjudication of UNM’s claims asserted in Counts I-IV and therefore should not have been dismissed on the ground of the Eleventh Amendment.

D. Appointment of a Special Master

On appeal, Scallen and Knight contest the district court’s *sua sponte* appointment of a special master. They argue that the appointment does not meet the “exceptional circumstances” requirement of Federal Rule of Civil Procedure 53(b), as interpreted by the Supreme Court in *La Buy v. Howes Leather Co.*, 352 U.S. 249 (1957). Scallen and Knight also argue that the district court’s *sua sponte* appointment, just four days after UNM moved for the appointment of a special master, and the court’s failure to consult Scallen or Knight prior to the appointment deprived them of an opportunity to object. Scallen and Knight further argue that use of a special master for the sole purpose of reviewing pending motions is contrary to Article III of the Constitution. Finally, Scallen and Knight assert that Special Master Regan had a potential conflict of interest or bias because he had taught classes at UNM’s law school.

UNM responds that Scallen and Knight waived their right to object to the appointment of a special master by not objecting until after the special master’s second report was filed. UNM argues that a court may appoint a special master without the consent of the parties and that a special master need not have expertise in the subject technology. Additionally, UNM responds that Regan cannot be held to have been biased simply because he found Scallen and Knight’s legal theories to

be flawed.

The district court appointed the special master on March 21, 2000 and issued the order of reference on the following day. Scallen filed a response to the appointment in which he stated that he was “hopeful that the Special Master [would] be successful in his endeavors.” The only reservation that Scallen expressed at that time was that he would like the special master to conduct any hearings telephonically. The special master eventually issued two reports: one was dated May 31, 2000 and adopted by the court on August 9, 2000; the other was dated September 20, 2000 and adopted by the court on January 29, 2001. It was not until February 5, 2001 that Scallen requested revocation of both the special master’s appointment and the order of reference.

We thus agree with UNM that Scallen and Knight waived any objection they might have had to the court’s appointment of a special master. It is well-settled that objection to the appointment and use of a special master may be waived if not made in a timely fashion. *E.g., Clark v. Poulton*, 963 F.2d 1361, 1367 (10th Cir. 1992); *First Iowa Hydro Elec. Coop. v. Iowa-Ill. Gas & Elec. Co.*, 245 F.2d 613, 628 (8th Cir. 1957). A party may not wait to see whether it likes a master’s findings before challenging the use of a master. *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1566, 7 USPQ2d 1057, 1061 (Fed. Cir. 1988). Scallen and Knight did not object to the special master’s appointment for nearly a year, and Scallen then did so only after the special master had issued two reports with findings and recommendations unfavorable to them. Even recognizing that Scallen and Knight are *pro se* litigants, we find that they had ample opportunity to object well before they did. We therefore conclude that Scallen and Knight waived their right to object to the appointment of the special master.

E. Costs

In light of our remand for further proceedings in this case, we vacate the court’s award of costs and the special master’s fee to UNM as premature. On remand, the district court may revisit the award of costs and fees once it has adjudicated the remaining issues in the case.

F. Motion to Strike Portions of Knight’s Appendix

UNM has filed a motion to strike portions of the appendix submitted by Knight. Knight has responded. The motion to strike is moot.

CONCLUSION

The district court correctly granted summary judgment that Scallen and Knight breached their contractual obligation to assign their patents and applications to UNM. The court also correctly granted summary judgment declaring UNM to be the owner of the beta-alethine patents and applications and correctly determined that UNM is the owner of the vitaletheine patents and applications. The court erred, however, in dismissing Scallen and Knight’s counterclaims for money damages as barred by the Eleventh Amendment. We reverse the court’s dismissal of Knight’s counterclaim for royalties, and we vacate the court’s dismissal of Scallen and Knight’s other counterclaims with instructions for the district court on remand to dismiss under the Eleventh Amendment only those counterclaims that are not compulsory to UNM’s claims in Counts I-IV. We also conclude that Scallen and Knight waived any objection they might have had to the appointment of a special master. Finally, we vacate the court’s award of costs and the special master’s fee. Accordingly, the decision of the district court is

AFFIRMED-IN-PART, REVERSED-IN-PART, VACATED-IN-PART, and REMANDED.

[11] U.S. Patent Application 07/549,103 (Knight, Mann, & Scallen, "Beta-Alethine as Anti-Tumor Agent"); U.S. Patent Application 07/549,104 (Knight, Mann, & Scallen, "Beta-Alethine Use in Cell Culture and Therapy").

[12] U.S. Patent Application 07/549,105 (Knight & Scallen, "Vitaletheine Modulators in the Prophylaxis and Treatment of Disease"); U.S. Patent Application 07/549,438 (Knight & Scallen, "Vitaletheine Modulators and Use in Cell Cultures"); U.S. Patent Application 07/549,440 (Knight & Scallen, "Therapeutic Use of Vitaletheine Modulators in Neoplasia").

[13] UNM claims that a Co-Inventor Agreement relating to the beta-alethine inventions was also executed between the inventors and UNM. That agreement has not been "found" and is not in the record. In his declaration, however, Scallen acknowledges that in 1991 the inventors signed two Co-Inventor Agreements, one for the inventions in the three vitaletheine parent applications and one for the inventions in the two beta-alethine parent applications.

[14] U.S. Patent Application 07/924,977 (Knight, Mann, & Scallen, "Beta-Alethine as Anti-Tumor Agent"); U.S. Patent Application 07/919,253 (Knight, Mann, & Scallen, "Beta-Alethine Use in Cell Culture and Therapy"); U.S. Patent Application 07/910,892 (Knight & Scallen, "Vitaletheine Modulators in the Prophylaxis and Treatment of Disease"); U.S. Patent Application 07/941,926 (Knight & Scallen, "Vitaletheine Modulators and Use in Cell Cultures"); U.S. Patent Application 07/928,725 (Knight & Scallen, "Therapeutic Use of Vitaletheine Modulators in Neoplasia").

[15] Upon a motion by Scallen, the district court issued an order declaring the 1983 Patent Policy to be the controlling patent policy in the lawsuit. Regents of the Univ. of N.M. v. Knight, No. CIV 99-0577, slip op. at 4 (D.N.M. Mar. 21, 2000). We will also treat the 1983 Patent Policy as the controlling policy.

[16] The Agreement further provides that "[i]t is understood by the Parties that UNM as the owner of the Inventions has the right to assign or license any of the Inventions."

[17] We need not enter the scientific dispute over whether the amended structures actually describe the vitaletheine inventions correctly, as that question has no bearing on the inventorship and ownership issues before us.

[18] The regional circuits uniformly agree that Eleventh Amendment waiver is a question of law subject to de novo review.

[19] The case primarily relied on by the district court, FDIC v. Hulsey, 22 F.3d 1472 (10th Cir. 1994), involved a question of the federal sovereign's immunity from suit, not a state's immunity under the Eleventh Amendment. See id. at 1486-87.

[10] Although we addressed a similar issue in Genentech, Inc. v. Eli Lilly & Co., 998 F.2d 931, 27 USPQ2d 1241 (Fed. Cir. 1993), the facts of that case did not require us to distinguish between compulsory counterclaims and those in recoupment. See id. at 946-48, 27 USPQ2d at 1251-53.

[11] The Lapides Court held that a state waives its Eleventh Amendment immunity when it removes a case from state court to federal court. 122 S. Ct. at 1646. Although the state in that case attempted to assert its Eleventh Amendment immunity for the very claim that it brought into federal court, whereas UNM seeks to invoke its Eleventh

Amendment immunity for counterclaims asserted against it, the principles articulated by the Court in its opinion are both applicable and instructive.