

Inventorship and Ownership Considerations and Pitfalls with Collaborative Research

Patent Highlight

MaryAnne Armstrong* and Gerald M. Murphy, Jr.

Birch, Stewart, Kolasch & Birch, LLP, 8110 Gatehouse Road, Suite 100 E, Falls Church, Virginia 22042, United States

ABSTRACT: Collaborations can be very productive and beneficial for research. However, there are a number of considerations and pitfalls with regard to issues of inventorship and ownership that should be considered before entering into any research agreement to avoid the possible loss of patent rights.

Collaborative research between companies presents some very unusual and complex patent considerations concerning inventorship and ownership, which can have important consequences on the value of a patent. The chances for obtaining strong patents can be improved by entering into appropriate research and licensing agreements before an invention is made based on the collaborative effort. Failure to properly consider the inventorship and to enter into appropriate agreements can have disastrous consequences.

Inventorship and ownership are important and intertwined issues in collaborative research. The concept of “inventorship” can be very confusing for many researchers, since researchers are accustomed to considerations of whether an individual should be listed as an “author” on journal article, which is very different from whether a person may be an inventor on a patent. A person may have made some truly useful contributions to a research project, which rightfully suggests that they should be included on any published article that reports on the project. In addition, although a variety of skills and contributions are needed to bring an invention to the market place, not all of the participants are considered inventors.

The inventor is a person who *conceived* of the invention.¹ Conception is more than contemplating a desirable result or goal.² The inventor must have a “definite and permanent” idea of the invention such that it is susceptible to being reduced to practice without undue experimentation.³ Once conception is complete, participants who reduce the invention to practice using routine skill and confirm its utility are not inventors.⁴

An historic case in which inventorship was a key issue was *Burroughs Wellcome Co. v. Barr Laboratories Inc.*⁵ This case involved the determination of the proper inventors of seminal patents of Burroughs Wellcome relating to the use of AZT to treat AIDS. Barr argued that the patent should include NIH researchers Broder and Mitsuya as inventors because they did the initial cell culture assays with AZT to show activity *in vitro*. Barr wished to have the NIH scientists named as inventors because if they were inventors, Barr would have a license from NIH and not be liable for infringement. Despite the fact that Broder and Mitsuya participated in the “reduction to practice” of the invention, it was determined by the court that they were

not *inventors* on the patent because they did not participate in the *conception* of the invention.

The courts very recently revisited this issue in *Falana v. Kent State University*.⁶ In *Falana*, KDI (a spin-off company from Kent State) hired Dr. Seed to work on a project synthesizing and developing chiral additives for liquid crystal displays. Dr. Seed, in turn, hired Dr. Falana to work on the project. Dr. Falana independently synthesized various compounds and developed a synthesis protocol for developing a new class of chiral additives. One of the compounds synthesized by Dr. Falana was “Compound 7”, which was an SS enantiomer. Dr. Falana left KDI, and Dr. Seed subsequently used the synthesis protocol developed by Dr. Falana to synthesize “Compound 9”. Compound 9 was an RR enantiomer, which fell within the generic class of compounds developed by Dr. Falana. KDI and Kent State then filed a patent application, which claimed a genus of compounds that did *not* include Compound 7, synthesized by Dr. Falana. However, the specification of the patent application disclosed the synthesis method of Dr. Falana. Dr. Falana was not included as an inventor, and he filed a law suit to have himself named as a coinventor. The court posed the question at issue as being, “whether a putative inventor who envisioned the structure of a novel chemical compound and contributed to the method of making the compound is a joint inventor of claim covering that compound.”⁷ In considering this question, the court noted that “the conception of a chemical compound necessarily requires the knowledge for making that compound”. If such knowledge is “nothing more than the use of ordinary skill in the art”, development of the method would not generally be a sufficient contribution so as to amount to joint inventorship of the claimed compound.⁸ However, the court went on to state that, “where the method requires more than the exercise of ordinary skill, however, the discovery of that method is as much a contribution to the compound as the discovery of the compound itself...a putative inventor who envisioned the structure of a novel genus of chemical compounds and contributes to the method of making that genus contributes to the conception of that genus”. The court also noted that once that method has been become part of the

Published: April 26, 2012



public knowledge, the person who developed the method would not necessarily be an inventor of later developed species.⁹ The court thus concluded that Dr. Falana, by providing the method of making the claimed compounds, contributed to the conception of the claimed genus of compounds and that Dr. Falana should be named as a coinventor.

The older decision *Burroughs Wellcome Co.* and the recent decision of *Falana* show that the contribution of each person working on a project must be considered in determining inventorship. It is important to review not only what each person did but also what was already known or “routine” practice at the time. If a person performed routine experiments on compounds that were synthesized by someone else or if the person synthesized compounds using routine protocols, where the structure of the compounds was developed by someone else, that person is likely not an inventor. On the other hand, if the person contributed something that was essential for developing the invention, e.g. a new synthesis method that allows the compounds to be made, then that person may be an inventor. The potential ramifications in making errors in the inventorship are discussed below with regard to “ownership” of patent rights.

Unless there is an agreement to the contrary, the inventors are considered to be the owners of a patent. If there are coinventors, then the coinventors are co-owners, as well. Under U.S. laws,¹⁰ one co-owner/inventor can sell the patented invention without having permission from or having to pay royalties to the other coinventors. Thus, it becomes important for a company or university to make sure that proper ownership of an invention is in place.

The potential damage resulting from errors in the areas of inventorship and ownership can be seen from *Ethicon, Inc. v. United States Surgical Corp.*¹¹ Dr. In-Bae Yoon conceived of a safety feature to prevent accidental injury during use of a surgical device. Dr. Yoon met Young Jae Choi and asked him to help on several projects, for which Mr. Choi was not paid. Mr. Choi suggested several modifications to the device. After 18 months, Mr. Choi stopped cooperating with Dr. Yoon and Dr. Yoon subsequently filed a patent application on the invention (including the modifications of Mr. Choi) in which he named himself the sole inventor. Dr. Yoon exclusively licensed the patent to Ethicon.

Ethicon sued United States Surgical Corp. for infringement and, during discovery, U.S. Surgical Corp. learned of Mr. Choi's involvement in the development of the invention. U.S. Surgical Corp. signed an agreement with Mr. Choi, whereby Mr. Choi gave U.S. Surgical Corp. a license under the patent. After signing the license, U.S. Surgical Corp. asked the court to correct the inventorship of the patent to add Mr. Choi as an inventor and to dismiss the suit because U.S. Surgical was now an authorized licensee under the patent. The court held that Mr. Choi was coinventor on the patent and dismissed the suit against U.S. Surgical Corp. in its entirety.

The error in the inventorship resulted in Ethicon's complete loss of any possible damages from U.S. Surgical Corp. However, one way in which Ethicon could have been further protected from the ramifications of such an error would be if Mr. Choi had been under an obligation to assign any rights to any developments he made to Dr. Yoon/Ethicon. If such an obligation to assign ownership had been in place, even if Mr. Choi had later been named an inventor, he would not have been able to license the technology to U.S. Surgical Corp.

However, *Bd. of Trustees of Leland Stanford Jr. University v. Roche Molecular Systems*¹² illustrates it is also important to consider the type of assignment document used to transfer the ownership of the invention. In *Stanford* there were two competing potential assignment contracts at issue. Upon joining a laboratory at Stanford as a research fellow, inventor Holodniy signed an agreement stating, “I agree to assign or confirm in writing to Stanford...right, title and interest in...such inventions as required by Contracts or Grants”. Holodniy later went to Cetus and continued working on the same technology. Holodniy signed a second agreement with Cetus stating that he “will assign and do[es] hereby assign to Cetus, [his] right, title, and interest in each of the ideas, inventions and improvements” that he might devise “as a consequence of” his work at Cetus. As a result, there were seemingly two competing assignments of rights to the invention.

However, the Court held that the agreement signed with Stanford was not an assignment of Holodniy's rights to the invention. The language of the contract was found to be an agreement to assign the rights in the future, but with the agreement in question, no rights had actually been transferred yet. The agreement with Cetus, on the other hand, was found to be a legal affirmative assignment of rights in the invention.

Thus, as well as considering inventorship, it is further important that the language used in employment contracts be reviewed and properly worded so as to clearly transfer the ownership of any inventions developed. Similarly, when a research agreement is entered into, before any research commences, it is extremely important for the parties involved to determine where the ownership of any inventions that are developed will reside and to have a written agreement to that effect. The failure to have a proper agreement may result in the complete loss of ownership of the invention or of the value of the invention.

This material is public information and has been prepared solely for educational purposes to contribute to the understanding of U.S. intellectual property law. This article reflects only the personal views of the authors and is not individualized legal advice. It is understood that each case is fact-specific and that the appropriate solution in any case may vary.

■ AUTHOR INFORMATION

Corresponding Author

*E-mail: maa@bskb.com.

Author Contributions

The manuscript was written through contributions of all authors. All authors have given approval to the final version of the manuscript.

Notes

The authors declare no competing financial interest.

■ REFERENCES

- (1) *In re Hardee*, 223 U.S.P.Q. 1122 (Comm'r of Pat & Trademarks, 1984).
- (2) *Fiers v. Revel*, 25 U.S.P.Q.2d 1601 (Fed. Cir. 1993); *Amgen Inc. v. Chugai Pharmaceutical Co.*, 18 U.S.P.Q.2d 1016 (Fed. Cir. 1989).
- (3) *Sewall v. Walters*, 30 U.S.P.Q.2d 1356 (Fed. Cir. 1994).
- (4) *Burroughs Wellcome Co. v. Barr Laboratories, Inc.*, 32 U.S.P.Q.2d 1915 (Fed. Cir. 1994).
- (5) *Id* at 1915.
- (6) *Falana v. Kent State University*, 101 USPQ2d 1414 (Fed. Cir. 2012).
- (7) *Id* at 1420.

- (8) *Id* at 1420.
- (9) *Id* at 1421.
- (10) 35 USC §262.
- (11) *Ethicon, Inc. v. United States Surgical Corp*, 45 U.S.P.Q.2d 1545 (Fed. Cir. 1998).
- (12) *Bd. of Trustees of Leland Stanford Jr. University v. Roche Molecular Systems*, 131 S.Ct. 2188, 98 U.S.P.Q.2d 1761 (2011).