

How to Manage Collaborative Inventions

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One of the main goals of university technology transfer offices is to outlicense technology to industry. Patent portfolios provide attractive incentives for industries to license technology from universities; however, a decision to license technology is only the first move in a rather interesting, question-filled relationship between academia and industry.

An initial question is whether work is to be conducted by both parties, in accordance with a work plan laid out with agreed objectives. A typical model involves research to be conducted by a principal scientist in academia, with such work to be sponsored and/or funded by industry. A work plan, and associated budget, is developed and agreed upon. The parties then meet periodically to review the progress of the research. These project reviews may reveal inventions made during the course of the research program.

An industry perspective may view intellectual property as a strategic asset, but the stage of the technology dictates the value of the asset. In other words, a question is whether the technology is only at a basic research stage and likely to incur further costs of development or is it already at a mature stage and primed for commercialization. A further question is whether the industry will fund the further development of the technology and the procurement of intellectual property rights. In particular, the industry may obtain outright ownership of the intellectual property, an exclusive license or an option to obtain a license at a later date.

The academic perspective may be quite different. Partnering with industry is a source of research funds and it is important for a university to maximize the opportunity. Hence, promising technologies in their early stages of development may be considered more valuable in this light. Furthermore, the university may prefer that ownership stays with the academic institution to ensure continued development of the technology.

Unfortunately, there are some patent procurement issues that are diametrically opposed. From an industry perspective, limits on publications to protect patent rights may be preferred. On the other hand, academia subscribes to the publish or perish tenet, a position often expressed in terms of academic freedom. Both industry and the university may wish to take the lead in patent procurement and/or enforcement. Such decisions should be in the resultant agreement, as well as choice of counsel. It

should also be clear as to whom the counsel represents—the university, the industry or both—as long as appropriate waivers are obtained.

One or both parties may identify inventions during the course of their respective research, and this may happen independently of the standing project reviews. In either case, the collaboration agreement will typically contain language that requires that any party that identifies an invention notify the other party as to such a development. This gives the parties the opportunity to share their respective views as to the nature of the invention, whether it may be patentable, and if so, whether patent filings should be made at this time, or if they should await development of additional data that would reasonably be expected to lend support to the patent application or broaden its scope.

A preliminary determination of inventorship may be performed at this stage. Under U.S. case law, an inventor is one who conceives of an invention, and not merely one who assists in its reduction to practice.¹ As such, an individual or individuals may be deemed an inventor even though such individual performed no experiments or “wet work.” Generally, conception is “the complete performance of the mental part of the inventive act,” and “the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice.”²

And, an individual may be deemed a co-inventor even though he or she did not work in the same laboratory as the other inventor, did not make its contribution to the invention contemporaneously as the other inventor, etc.³ It is a requirement for patentability that the inventors of a patent be identified in the patent application.⁴ Failure to name an inventor is known as non-joinder, whereas naming an individual who did not contribute inventively to a patent constitutes mis-joinder.⁵

Under U.S. law an issued U.S. patent may be deemed invalid or unenforceable for failure to comply with the rule that the true inventors be named.⁶ However, the America Invents Act (AIA) has proposed changes to simplify correction of inventorship.⁷ In particular, the proposed rules simplify the methods for correcting inventorship. For example, proposed rule 37 C.F.R. § 3.31(h) would permit the use of an assignment to meet the oath or declaration requirements.⁸ In other words, an inventor would only need to sign one document to satisfy the oath

and declaration requirements of an inventor as well as assign his or her rights to an assignee. Furthermore, as amended by the AIA, 35 U.S.C. § 256(b)⁹ recites “[t]he error of omitting inventors or naming persons who are not inventors shall not invalidate the patent in which such error occurred if it can be corrected as provided in this section.” This amended language contemplates the invalidation of patents that fail to name the proper inventors; however, correcting inventorship has been simplified under the AIA and there is no reason why a patent should be unenforceable for improper inventorship.

There is no such rule in other jurisdictions, where, e.g., applications may be filed in the name of the company in which the research was conducted, or in the name of the head of the laboratory, and select others, where the research was performed. In other words, in other jurisdictions inventorship may be treated in a manner analogous to authorship. U.S. patent practitioners should be aware of this difference in rules and standard practice when preparing the U.S. counterpart of a foreign application.

Since inventorship is determined on a claim-by-claim basis, and as certain individuals may be deemed to have contributed to the invention described by some, but not all, of the claims in a patent application, a final review and correction of inventorship should be undertaken by the patent practitioner prosecuting the patent application at the time the Notice of Allowance is received.

Aside from compliance with the law, inventorship is often associated with ownership of patents which arise under a collaboration. Many collaboration agreements recite that “ownership of patents arising under the collaboration will follow inventorship, with inventorship determined in accordance with U.S. law.” Under U.S. law, and absent any contractual agreement to the contrary, co-inventors each enjoy a complete, undivided interest in such patents.¹⁰ Such patents are deemed to be jointly owned, and each party is free to exploit all or part of such patent, and license others to so exploit, without the consent of, and without accounting to, the other party.¹¹ Naturally, neither co-owner can license any aspect of a jointly owned patent on an exclusive basis. In the U.S., patent ownership rights are transferred contractually through a patent assignment agreement.¹²

Note that this situation is handled differently in other jurisdictions. In France, for example, a party to a jointly-owned patent may practice such patent directly, but cannot license its rights to a third party without the express consent of the other owner. This can result in a striking asymmetry between the parties insofar as one party, e.g., the commercial entity, may have the wherewithal to undertake development, registration and commercialization whereas the other party, e.g., the academic, could realize

no value in the absence of outlicensing, something he or she could not do without the consent of the other owner.

Generally, academia has a limited budget for patent expenses, and looks to the industry partner to pay for preparation and prosecution. From the university’s standpoint, this can give rise to a “moral hazard” insofar as, from the university’s perspective, it would be best if the industry partner were to file, and vigorously prosecute, in each and every country of the world. It is highly unusual for any company to file patent applications in countries other than those where they may expect to make, use or sell products covered by the patent in question. Most companies have a standard list of countries where they routinely file, and may elect, on a case-by-case basis, to file in additional countries if a particular patent has potential relevance to countries not on the standard list.

The university may take the position that, notwithstanding the interest of the industry partner, and standard language of the contract referring to the territory as “worldwide,” the industry partner may be deemed to have forfeited rights in countries where patent applications have not been filed. From the university’s point of view, any country for which patent protection is not sought represents a country where otherwise infringing acts may occur, thereby depriving the university of royalty revenue to which it would be otherwise entitled. Generally, the parties agree that the industry party is obligated to file in those countries where it customarily files, and no more. Sometimes the university partner insists on a list of such countries at the outset, and that becomes part of the negotiation, and the contract itself.

Differences in patent enforcement issues also exist from industry and academic perspectives. From an industry perspective, litigation protects a competitive position as a patent has value with respect to its enforcement. However, an important question is whether the industry partner has standing to sue. Furthermore, if the patent deals with pharmaceutical drugs and their therapeutic equivalents and is to be listed in the Orange Book, such a listing requires exclusive rights. On the other hand, a university tends to be risk-averse and may be displeased about the role the inventors are expected to play in a litigation.

Another question is who decides what to do in case a jointly owned patent is being infringed. Because joint owners are considered indispensable parties to an infringement suit, if a joint inventor wants to sue an alleged infringer, it cannot do so unless all co-inventors voluntarily join in the suit.¹³ The interests of the parties may not always be aligned. One party may be practicing the patented invention, and/or relying on the patent to exclude competitors from practicing such invention, and may not

be willing to put the patent at risk by filing an infringement suit. The alleged infringer will likely develop arguments designed to persuade the court that the patent at issue is invalid or unenforceable, and such a holding will apply to all parties, not simply the alleged infringer.

For this reason, and based on its individual, subjective assessment of the “strength” of a given patent, a party may prefer to ignore infringement so as to avoid putting the patent “in play.” The other party may only be collecting royalties, and may complain that unchecked infringement deprives it of royalties for which it would otherwise be entitled (such hypothetical lost royalties could be associated with lost sales of licensed product that would have been realized “but for” the infringing alternative). Or, such party may feel that the other party should sublicense the alleged infringer rather than allow the infringement to continue unabated. Because of these predictable divergences of interest the disposition of alleged infringement must be agreed in advance.

Assuming the parties agree, or the party that was contractually vested with the right to initiate an infringement suit does so, the question is what happens next? The lead party may require the cooperation of the other party, its inventor(s), witnesses, etc. The other party may need to be joined to the suit. Beyond that, other questions are where to file the suit, what outside counsel to engage, which party pays, who decides matters of strategy and who decides whether and when to settle.

Assuming the parties prevail, and provided monetary damages are awarded, the next question is, how are such damages to be divided? One way to approach this last point is to reimburse each party for its costs and expenses associated with the litigation, then divide the remainder in proportion to the amount of money each had invested in the suit. More commonly, damages are treated as comparable to “Net Sales,” and the licensor is paid a royalty at the agreed rate.

There are many conflicting interests between academia and industry that must be identified and managed effectively from the outset. For example, ownership and rights to the invention may be retained by academia, granted to the industry partner or joint ownership between the two. Ownership of inventions arising from joint research projects may also present a conflict. The publication of results is also at issue—generally industry prefers less disclosure while academia encourages publishing. The availability of inventions to promote development is another conflicting issue. Also, the availability of inventors and the demands on their time for enforcement of the patent is another issue that most universities do not desire. Furthermore, a reversion of rights in initial

and any jointly owned inventions to the university in the event there is no commercialization is yet another issue to consider.

Despite the issues in collaborative inventions between industry and academia, the rewards may outweigh the conflicts. For example, suppose a university develops a basic, real-world technology, an appeal to patent examiners that the university needs a patent to get a licensee and further develop the technology may be successful. Suppose the same university obtains an industry partner and develops lead compound X. An appeal to patent examiners that the university has a licensee and both the university and licensee need a patent because the product is in clinical trials may likely be successful as examiners often appreciate real-world scenarios. Often, if a perspective is maintained and balanced for both academic and university interests, a collaborative invention tends to be beneficial for both parties.

Endnotes

1. Morse v. Porter, 155 USPQ 280, 283 (Bd. Pat. Inter. 1965).
2. Townsend v. Smith, 36 F.2d 292, 295, 4 USPQ 269, 271 (CCPA 1930).
3. 35 U.S.C. § 116.
4. Stark v. Advanced Magnetics, 119 F.3d 1551, 1553, 1556 (Fed. Cir. 1997); 35 U.S.C. § 102(f).
5. 35 U.S.C. § 256.
6. Stark v. Advanced Magnetics, 119 F.3d 1551, 1552 (Fed. Cir. 1997).
7. Federal Register/Vol. 77, No. 4/Friday, January 6, 2012/Proposed Rules.
8. 37 C.F.R. § 3.31(h).
9. 35 U.S.C. § 256(b).
10. MPEP § 301.
11. 35 U.S.C. § 262.
12. 35 U.S.C. § 261.
13. Ethicon, Inc. v. United States Surgical Corp., 135 F.3d 1456, 1468 (Fed. Cir. 1998); Bendix Aviation Corp. v. Cury, 88 F. Supp. 243, 247-48 (E.D.N.Y. 1950).

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