

## 5 Ways University Students, Faculty Risk Forfeiting IP Rights

Law360, New York (September 10, 2015, 10:34 AM ET) -- Ever since the Bayh-Dole Act[1] of 1980 gave intellectual property rights in federally funded inventions to universities, technology transfer offices have struggled to balance the traditional mission of academic institutions to publicly disseminate knowledge, with the challenges of protecting and commercializing university inventions. Although academic institutions recognize the value of translating research into patents, licenses and commercial products, there remains a strong scholastic motivation for faculty and students to publish their research findings in journals and at academic conferences to advance their reputation and career. As a result, intellectual property is often an afterthought for faculty and students. This article addresses some common disclosure activities in university settings and evaluates the potential risk that they might forfeit intellectual property rights.



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### Legal Standard for Public Disclosure

The patent system is based on a quid pro quo bargain: An inventor is granted a limited monopoly on his new and useful invention in exchange for disclosure of the invention to the public.[2] This bargain is not satisfied if the inventor publicly discloses the invention before filing a patent application. The legal standards in the U.S. and Europe that determine when a public disclosure by an inventor bars the patentability of a claimed invention are summarized below.

#### *United States*

For a public disclosure event to bar patentability in the U.S., the event must be a type of “disclosure” contemplated under the statute, and it must be sufficiently “public” to warrant a loss of rights.[3] Note, however, that the U.S. provides a grace period that gives an inventor one year to file a patent application after disclosing an invention to the public.[4]

#### *Relevant Types of Disclosure in U.S.*

The sources of prior art disclosures that can be used to challenge the novelty of a claimed invention in the U.S. are defined in 35 U.S.C. § 102, which was amended in the Leahy-Smith America Invents Act of 2011[5] to harmonize U.S. patent law with the laws of other countries. The AIA applies to any patent or application having an effective filing date on or after March 16, 2013. Since this article provides guidance on prospective disclosure activities, only the AIA version of Section 102 should be at issue, which states:

A person shall be entitled to a patent unless (a) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.[6]

The phrase “or otherwise available to the public” is considered by many to be a catch-all provision, such that any activity that is “public” in nature, including purely oral descriptions, may be used to challenge novelty for AIA patents and applications.[7] Therefore, under the AIA, there appears to be less emphasis on the type of disclosure, and greater emphasis on whether that disclosure was “public.”

### *Public Nature of Disclosure*

Although courts have yet to analyze what it means to be “otherwise available to the public” under AIA Section 102, it is reasonable to believe that they will rely on their prior precedent for evaluating the public nature of a disclosure.

A printed publication has been made publicly available to qualify as prior art if such document can be found by interested persons using reasonable diligence.[8] Once accessibility of a reference is shown, it is not necessary to show that anyone actually inspected the reference.[9]

Likewise, the public use bar arises where the invention is in public use before the critical date and is ready for patenting.[10] The test for the public use prong includes the nature of the activity that occurred in public, public access to the use, confidentiality obligations imposed on members of the public who observed the use, and commercial exploitation.[11]

Note that whether a disclosure is “public” is not determined by the number of people having access to the disclosure. Disclosure to a single person can be “public” if it is done so without limitation or restriction.[12] Rather, it is the degree of confidentiality that determines whether an invention is accessible to the public.[13]

Therefore, courts are reluctant to consider something publicly accessible or in public use when there is a reasonable expectation that the disclosure or use was confidential.[14] Binding agreements of confidentiality aren’t required.[15] If an inventor uses protective measures, such as nondisclosure agreements, anti-copying software or even simple disclaimers, a court can determine that these measures create a reasonable expectation on the part of the inventor that the displayed information will not be copied.[16] Professional and behavioral norms, such as academic norms relating to codes of practice that occur in academic circles, can also support expectations of confidentiality without any formal agreements in place.[17] Note, however, that confidentiality can only negate a public use disclosure if there has been no commercial exploitation.[18]

It is important to note, however, that a “reasonable expectation of confidentiality” only protects the initial disclosure by the inventor to the confidential party. Therefore, if the confidential party nevertheless chooses to break that confidence and discloses the invention, that disclosure could

be considered an unprotected prior art event.

### *Europe*

The AIA was intended to harmonize U.S. patents laws with those of other jurisdictions. For example, the AIA’s expansion of relevant prior art to that which is “otherwise available to the public” is similar to the definition provided in Article 54 of the European Patent Convention (EPC), which covers “everything made available to the public,” including mere oral disclosures.[19] Three conditions are important in determining if a disclosure is “available to the public” under the EPC. The relevant disclosure must be available to at least one member of the public; the disclosure has to actually teach the information to be used in evaluation of patentability; and the technical teaching of the prior art must be enabled.[20] Under this first condition, the disclosure must be both accessible and nonconfidential to affect novelty of a claimed invention. Therefore, information disclosed to a third party under conditions of secrecy, either expressly or impliedly, is generally not “available to the public” under the EPC.[21] Moreover, secrecy can be inferred based on the specific nature of the industry.[22]

### **Examples**

The legal effect of an inventor’s public disclosure before a patent application is filed can be very fact-dependent. The following examples illustrate how some common disclosures activities in university settings can affect potential patent rights.

#### *Submitted Manuscripts and Online Publications*

Manuscripts submitted to peer-reviewed journals are usually treated with confidentiality by the journal’s editors and reviewers. Of course, a submitted manuscript becomes a “printed publication” available to the public under § 102 and Article 54 of the EPC as soon as it is published in print by the journal or made available online. Journals often publish articles online before printing — occasionally without advance warning. It is therefore important to determine the exact dates for both online and printed publication, and then to file a patent application before publication occurs. If publication has already occurred, then a patent application should be filed as soon as possible within the U.S. grace period.

#### *Theses and Dissertations*

A thesis or dissertation is generally sufficiently accessible to the public to constitute prior art as a “printed publication” once it is indexed and shelved in a library.[23] This is true even where access to the library is restricted.[24] Copies of a student’s thesis or dissertation are also often available for purchase through various companies (such as ProQuest and UMI) that copyright these works. Note that some schools provide the option to embargo a thesis or dissertation for a limited time, which can be used to allow the university more time to submit a patent application.

### ***Scientific Meeting Presentations***

There are several opportunities for “public disclosure” at a scientific meeting. For example, faculty and students can present their discoveries in abstracts, posters, oral presentations, and in casual conversation with other attendees. Meeting abstracts are often compiled into a volume and made available to meeting attendees one or two months before the meeting, which would be considered a “printed publication” under U.S. and EPC law. For temporarily displayed materials (e.g., slides and posters) the duration of display affects whether it is considered a “printed publication.” However, this may not be dispositive under the AIA, since it is believed that mere oral disclosures can be enough to constitute a public disclosure when sufficiently enabling.

### ***Grant Applications***

As with manuscript submissions, grant applications submitted to private foundations or federal agencies are generally held in confidence while under review. With federal grants however, certain details, such as the project title, principle investigator, amount of reward and the grant abstract are generally made available to the public once the grant is funded.[25] At least one district court has concluded that a funded government grant proposal constituted a printed publication since it was filed, indexed, and available from the agency under the Freedom of Information Act[26] before the date of application.[27] However, this court did not consider the ability of the agency to withhold information pursuant to a FOIA request relating to trade secrets and patent or other commercial rights.[28] Even so, it is best not to rely on this and to treat a federal grant proposal as publicly accessible as soon as it is funded.

### ***Collaborations***

Perhaps the most difficult situations to control and account for are presentations and informal conversations. Students and faculty routinely discuss their research with colleagues, both inside and outside of their lab and department. In other words, they engage in scientific research, collaboration and scholarship — all of which involve the flow of information. As discussed above, there are professional norms or codes of practice that occur in academic circles that can support expectations of confidentiality without any formal agreements in place.[29] These norms can provide protection for collaborations with colleagues at other academic institutions. However, these norms are also changing as the lines between academia and industry begin to blur. A survey of 194 U.S. academic institutions published by the Association of University Technology Managers for fiscal year 2012 showed a growing role for industry-sponsored university research.[30] Unlike traditional academic collaborations, communications with industry may lack implicit expectations of confidentiality and require formal agreements with clear confidentiality provisions.

Even less clear is a scenario where an inventor collaborates with a student or faculty who receives an industry-sponsored research agreement. Does the inventor have a reasonable expectation of confidentiality based on professional norms if the colleague has a contractual

relationship with an industry partner? What if the colleague maintains an academic appointment as well as employment or directorships at private companies?

While it may be impractical to file patent applications or obtain confidentiality agreements before all collaborative activities, parties should nevertheless establish expectations of confidentiality. For example, it may be prudent to mark communications to collaborators as “confidential” and request that they agree to maintain this confidentiality until it becomes publicly available.

## Conclusion

Academic research involves a flow of information that, while necessary, can create a bar to patentability. At minimum, a patent application should be filed for important inventions before any disclosure that is not protected by a reasonable expectation of confidentiality. However, this standard of confidentiality is fact-dependent and difficult to predict. Moreover, these expectations do not prevent an invention from becoming public if confidentiality is breached. It is therefore prudent to file a patent application before any disclosure of the invention to someone who is not part of the research team. In addition, communications with collaborators at other institutions or with outside affiliations should be treated with care so that expectations of confidentiality are evident and maintained.

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[1] Pub. L. 96-517, December 12, 1980; codified in 35 U.S.C. § 200-212; implemented by 37 C.F.R. § 401.

[2] [Enzo Biochem, Inc. v. Gen-Probe Inc.](#), 323 F.3d 956, 970 (Fed. Cir. 2002) (“[D]escription [of the invention] is the quid pro quo of the patent system; the public must receive meaningful disclosure in exchange for being excluded from practicing the invention for a limited period of time.”); 3 Donald S. Chisum, *Chisum On Patents* § 7.01 (2010).

[3] In order for a public disclosure to anticipate a claimed invention, the disclosure must also be sufficient to enable one of ordinary skill in the art to practice the claimed invention without undue experimentation. *Elan Pharm., Inc. v. Mayo Found. For Med. Educ. & Research*, 346 F.3d 1051, 1054 (Fed. Cir. 2003); [Amgen, Inc. v. Hoechst Marion Roussel, Inc.](#), 314 F.3d 1313, 1354

(Fed. Cir. 2003); [Bristol-Myers Squibb](#) v. Ben Venue Laboratories, Inc., 246 F.3d 1368, 1374 (Fed. Cir. 2001).

[4] Pre-AIA 35 U.S.C. § 102(b); AIA 35 U.S.C. § 102(b)(1).

[5] Pub. L. No. 112-29, § 3(n)(1), 125 Stat. 293 (Sept. 16, 2011).

[6] 35 U.S.C. § 102(a) (newly amended by the Leahy-Smith America Invents Act of 2011).

[7] MPEP §§ 2128.01(II), 2152.02(e); Senator Leahy stated:

One of the implications of the point we are making is that subsection 102(a) was drafted in part to do away with precedent under current law that private offers for sale or private uses or secret processes practiced in the United States that result in a product or service that is then made public may be deemed patent defeating prior art. That will no longer be the case. In effect, the new paragraph 102(a)(1) imposes an overarching requirement for availability to the public, that is a public disclosure, which will limit paragraph 102(a)(1) prior art to subject matter meeting the public accessibility standard that is well-settled in current law, especially case law of the Federal Circuit.

112 Cong. Rec. Vol. 157, Number 35, S1496 (statement by Senator Leahy).

[8] *Cordis Corp. v. Boston Scientific Corp.*, 561 F.3d 1319, 1333 (Fed. Cir. 2009) (“A document is publicly accessible if it ‘has been disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it and recognize and comprehend therefrom the essentials of the claimed invention without need of further research or experimentation.’”) (quoting *In re Wyer*, 655 F.2d 221, 226 (C.C.P.A. 1981)).

[9] See *In re Lister*, 583 F.3d 1307, 1314 (Fed. Cir. 2009).

[10] *Invitrogen Corp. v. Biocrest Manufacturing L.P.*, 424 F.3d 1374, 1380 (Fed. Cir. 2005); Whether an invention is “ready for patenting” in the context of the on sale and public use bars “may be satisfied in at least two ways: by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.” *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 67 (1998).

[11] *Id.*

[12] *Egbert v. Lippmann*, 104 U.S. 333, 336 (1881); *Pronova BioPharma Norge AS v. Teva Pharms. USA, Inc.*, 549 Fed. App’x 934, 940 (Fed. Cir. 2013).

[13] *Id.*

[14] In re Klopfenstein, 380 F.3d at 1350–51 (“Whether a party has a reasonable expectation that the information it displays to the public will not be copied aids our § 102(b) inquiry. Where professional and behavioral norms entitle a party to a reasonable expectation that the information displayed will not be copied, we are more reluctant to find something a ‘printed publication.’ This reluctance helps preserve the incentive for inventors to participate in academic presentations or discussions.”).

[15] Cordis, 561 F.3d at 1333–34.

[16] In re Klopfenstein, 380 F.3d at 1351.

[17] Cordis, 561 F.3d at 1334.

[18] Invitrogen Corp., F.3d 1374 at 1380, 1382.

[19] European Patent Convention art. 54, Oct. 5, 1973, 1065 U.N.T.S. 199 (as amended Nov. 29, 2000).

[20] EUROPEAN PATENT OFFICE, CASE LAW OF THE BOARDS OF APPEAL 69–85 (Legal Research Serv. for the Boards of Appeal ed., 6th ed. 2010)

[21] Sekisui Kaseihin Kogyo Kabushiki Kaisha v. Owens-Illinois, Inc., [1996] T 0472/92 [E.P.O.]; Hareus Quarzglas GmbH & Co. KG v. Nikon Corp., [2000] T 0633/97 [E.P.O.]; Marposso Societa’ per Azioni v. FAG Kugelfischer George Schäfer & Co., [1995] T 1076/93 [E.P.O.]

[22] Id.

[23] In re Hall, 781 F.2d 897, 228 USPQ 453 (Fed. Cir. 1986).

[24] In re [Bayer](#), 568 F.2d 1357, 1361 (CCPA 1978).

[25] See e.g., NIH Research Portfolio Online Reporting Tools (RePORT) website available at <http://projectreporter.nih.gov>

[26] 5 U.S.C. § 552 and 45 C.F.R. § 612 et seq.

[27] [E.I. du Pont de Nemours & Co.](#), v. Cetus Corp., 1990 U.S. Dist. LEXIS 18382 (N.D. Cal. 1990).

[28] 5 U.S.C. § 552(b)(4)



[29] *Cordis Corp. v. Boston Scientific Corp.*, 561 F.3d 1319, 1334 (Fed. Cir. 2009).

[30] AUTM U.S. Licensing Activity Survey: FY2012, available at [www.autm.net/FY2012\\_Licensing\\_Activity\\_Survey/12351.htm](http://www.autm.net/FY2012_Licensing_Activity_Survey/12351.htm). Of the total \$63.7 billion total sponsored research expenditures in FY2012, \$40 billion was from federally funded research, while \$4.1 billion was from industry sponsored research.

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