

Intellectual Property, as defined by the University of Minnesota Intellectual Property Policy:

"Any invention, discovery, improvement, copyrightable work, integrated circuit mask work, trademark, trade secret, and licensable know-how and related rights. Intellectual property includes but is not limited to, individual or multimedia works of art or music, records of confidential information generated or maintained by the University, data texts, instructional materials, tests, bibliographies, research findings, organisms, cells, viruses, DNA sequences, other biological materials, probes, crystallographic coordinates, plant lines, chemical compounds, and theses. Intellectual property may exist in a written or electronic form, may be raw or derived, and may be in the form of text, multimedia, computer programs, spreadsheets, formatted fields in records or forms within files, databases, graphics, digital images, video and audio recordings, live video or audio broadcasts, performances, two or three-dimensional works of art, musical compositions, executions of processes, film, film strips, slides, charts, transparencies, other visual aid/aural aids or CD-ROMS."

There are four basic types of intellectual property, usually categorized on the basis of the laws governing their use and protection:

Copyrights: A copyright protects the tangible expression of an idea, not the idea itself (e.g., a book, a research article, or a videotape).

Patents: A patent protects the idea and gives the creator the right to exclude others from using the idea (e.g., a patent may be awarded to anyone who invents a new machine or a new way of manufacturing something, etc.). In order to receive the patent, the creator must disclose in detail how to make his invention work and its use.

Trademarks: A trademark identifies and distinguishes an idea, written words, pictures, or products from those of competitors (e.g., the Coca Cola script name is a registered trademark that immediately identifies the product).

Trade Secrets: A trade secret refers to information that is not publicly known, that produces economic benefit to the owner, and that the owner maintains as secret.

Ownership of Intellectual Property

The University owns all intellectual property created through the use of University resources or facilities, supported directly or indirectly by funds administered by the University, developed within the scope of employment by employees, assigned in writing to the University, or agreed in writing to be a specifically commissioned work.

With respect to the latter of these, the University may contract with a faculty member to create a specially commissioned work that would otherwise be a regular academic work product, such as the creation of a distance-learning program that would be sold to other institutions. Such specially commissioned work would be considered intellectual property that is owned by the University.

In the case of intellectual property created in the course of sponsored research or under contract with external parties, ownership is determined in accordance with the terms of the University's agreement with the funding agency or external party and applicable law. The same applies to intellectual property created under outside consulting or service arrangements.

Since the University wishes to preserve the faculty's traditional rights of ownership of their academic work, the policy specifically states that the University does not claim ownership rights to:

Regular academic work product, which is defined by the policy as any copyrightable work product that is an artistic creation or that constitutes, or is intended to disseminate the results of academic research or scholarly study. Regular academic work product includes, but is not limited to, books, class notes, theses and dissertations, course materials designed for the web, distance education, and other technology-oriented educational materials, articles, poems, musical works, dramatic works, pantomimes and choreographic works, pictorial, graphic and sculptural works, or other works of artistic imagination. Software specifically needed to support a regular academic work product or that is designed to disseminate the results of academic research and scholarly study is also considered a regular academic work product.

Intellectual property created by a student for the sole purpose of satisfying course requirements unless the student assigns ownership rights in the intellectual property to the University in writing or assignment of such ownership rights to the University is made a condition of participation in a course.

For each of the following cases:

- Identify the intellectual property issues and discuss each with respect to University policy;
- Identify conflicts and disputes and develop worst- and best-case resolutions; and
- In cases where a court ruling was made, discuss the ramifications of each ruling.

Case No. 1: Patient Rights

A scientist, now an employee of Genentech and formerly a member of a research group at the University of California at San Francisco (UCSF), testified in court that he had stolen into his old lab at UCSF and removed a sample of DNA for producing growth hormone that he and others at UCSF had developed. He claimed that he and a Genentech scientist then agreed to use the stolen sample to create a product called Protopin, which was used to correct a growth hormone deficiency in children and which later became extremely successful. He also stated that he had misrepresented the source of the DNA in a Nature article describing his research published in 1979.

Genentech acknowledged the taking of the sample of DNA and paid the University \$2M in compensation in 1979. However, Genentech claimed that they performed their own independent proprietary research to develop the product and denied using the UCSF DNA. UCSF claimed that the growth hormone product infringed on their patent and sued Genentech for \$400M in lost royalties. The dispute has continued for more than 20 years. Recently, a federal court jury deadlocked 8 to 1 in favor of UCSF. A new trial has been scheduled to decide whether infringement of patent rights has occurred and, if so, whether that infringement was willful. In the latter case, damages could reach \$1,500M.

Case No. 2: Data Ownership

Emory University licensed a synthetic antiviral compound called fluorothiacytidine (FTC), which was patented by three university professors, to Burroughs Wellcome for testing against the AIDS virus. After several years of testing, the company was bought by Glaxo, which stopped the testing and revoked the license because it already had its own AIDS drug, 3TC.

Emory sued Glaxo to obtain the clinical trial data acquired by Burroughs Wellcome which Glaxo claimed as its own. A small pharmaceutical company named Triangle then started its own tests of FTC, with rights from Emory. One of the three vice presidents of the company was also the vice president for research at Emory. A settlement was reached in the Glaxo case in which Glaxo received an undisclosed payment in exchange for granting exclusive worldwide rights to Emory and Triangle for the test data and intellectual property related to FTC.

Meanwhile, Emory is also claiming patent infringement by Glaxo for 3TC. Glaxo claims that the 3TC drug that is marketed is based on a patent held by a Canadian company and licensed to Glaxo Wellcome and that Emory's FTC patent is invalid.

Case No. 3: Regular Academic Work Product

A faculty member has taught a senior-level course in quantum mechanics for several years and has developed an extensive set of notes that she plans to convert into a new textbook as

soon as she can find the time. She is close to the end of the term for this year's course when she makes a rather alarming discovery—a student in her class has been selling the notes for her class at a small profit to the other students. The notes are an expanded version of her lectures and contain material from her visual aids, as well as diagrams copied from the textbook.

The student claims that he is only helping the other students learn a very difficult subject and that the profit barely covers his expenses. However, it soon comes to light that he has been doing the same thing for several other courses and actually hires students to take notes in other classes, which he then develops into a sellable form.

The faculty member is very upset. Not only is her lecture material being sold without her permission, but the student has also copyrighted it. Her university's policy clearly states that such traditional academic work product belongs to the faculty member.

Case No. 4: Breach of Contract and Misappropriation of Trade Secrets

Cryo-Cell contracted with the University of Arizona to establish a blood bank to preserve newborns' umbilical-cord blood which could widen options for future cancer treatments to boost a patient's immune system. A professor at the University of Arizona, who was the leading expert in this field, hoped to further his research on the storage and biology of cord blood with the help of Cryo-Cell, which paid him 25 percent of the storage fee charged to patients.

A few years later, the University of Arizona broke its contract with Cryo-Cell, claiming that the company could not provide the appropriate storage device. It contracted with another company, Cord Blood Registry, which charged significantly higher fees and paid the professor's lab 50 percent of the storage fees. The University of Arizona also gave the names of the customers served by Cryo-Cell at the University of Arizona to Cord Blood Registry so that it could continue to collect the storage fees.

Cryo-Cell claimed that the only reason the change to Cord Blood Registry was made was because the professor's lab would receive considerably more money and that providing the names to the new company was misappropriation of trade secrets. The University of Arizona claimed that it had acquired the original Cryo-Cell customers as a result of its own efforts, and hence, owned the customer list. Therefore, there was no misappropriation of trade secrets. The courts ruled in favor of Cryo-Cell. The University of Arizona lost its appeal and had to pay \$1.7M to Cryo-Cell.

Case No. 5: Specially Commissioned Work

The University of Northern South Dakota at Hoople (UNSD) commissioned a sculpture to honor the renowned composer P.D.Q. Bach. A well known faculty member from UNSD's Art Department produced the sculpture and was paid a handsome sum for the statue. The faculty member felt more than adequately rewarded for his work and thought no more about the statue after it was dedicated.

However, some years later, the faculty member was in a music store and noticed a display for the latest recording of P.D.Q. Bach's Ephygenia in Brooklyn which featured a picture of his statue. The same picture was on the front of every CD. Upon inquiry at the Office of the Vice President for Research, he learned that UNSD receives a royalty for every copy of

the CD sold and has collected a sizeable sum from the recording company for the use of the picture of the statue.

The professor claimed that he should have received the royalties because the statue, and any images of it, were his regular academic work product (he is a sculptor, after all), which university policy recognizes as belonging to him. UNSD disagreed, stating that the work was specially commissioned and paid for by the university and therefore belongs entirely to the university. As such, the statue did not fall under the category of traditional academic work product and, hence, any royalties deriving from it are the property of UNSD.