SECTION XI - Patent/Copyright Policies and Procedures

A major objective of Colorado State University is to disseminate new discoveries for societal benefit. However, these new ideas generally require substantial development prior to acceptance and application. The patent system is an effective tool that is critical for such development. A United States utility patent provides the university 20 years of exclusivity from the date of filing a patent application for an invention. Furthermore, the patent system encourages the development of the invention to the point of practical application or commercialization, and is typically required by the private sector for most product/service applications of the invention.

Colorado State University Patent Policy

The University recognizes that inventions and discoveries of global significance with commercial value will be a natural outgrowth of its cutting edge research activities. To assist the application of inventions for greater public good, a patent policy has been established by the Board of Governors of the Colorado State University System. Technical discoveries, inventions, and items of potential commercial relevance resulting from the research or investigation conducted by faculty, staff members, and students on University time or by anyone utilizing University facilities are the property of the University. The University owns all the rights, title, and interest in such inventions and related intellectual property (IP), while the inventors share in the rights to receive royalties from the successful commercialization of their inventions. <u>Section</u> J of the Academic Faculty and Administrative Professional Staff Manual provides further details (http://www.facultycouncil.colostate.edu/files/manual/sectionj.htm).

In 1980, the Bayh-Dole Act (PL 96-517, Patent and Trademark Act Amendments of 1980) created a uniform patent policy among the many federal agencies funding research. The intent of this legislation was to help make the United States more globally competitive. As a result of this legislation, universities may elect to retain ownership to inventions made under federally funded research. In return, universities are required to file for patent protection and to pursue commercialization via licensing. The royalties generated by such licenses and ventures are utilized to support the technology transfer process and the advancement of research at the University.

The Disclosure Process

University policy requires that inventions or works created by faculty, staff and students using University resources be disclosed to the University, as outlined in <u>Section J</u> of the Academic Faculty and Administrative Professional Manual

(http://www.facultycouncil.colostate.edu/files/manual/sectionj.htm). Ownership of intellectual property, consulting issues, distribution of royalties and certain rights and obligations of faculty, staff and students are among the other issues covered in <u>Section J</u>. As is traditionally accepted by public institutions, the University continues the tradition of disclaiming ownership of "Academic Materials" such as textbooks or their equivalent not created using University resources. However, "Works for Hire", or materials specifically commissioned by the University to be created for use at the institution, are owned by the University. For inventions created subject to <u>Section J</u>, an invention disclosure form must be completed fully and submitted

to the Vice President for Research (VPR) or to the Colorado State University Research Foundation (CSURF). The invention disclosure form may be obtained online at <u>http://csurf.org/forms.html</u>.

The invention disclosure, which is considered confidential information of the University, should fully and accurately describe the technology and the circumstances under which the technology was created. The disclosure identifies all sources of project funding, co-inventors and potential licensees. Any relevant material may be attached to the form to simplify the process and to provide greater details. As required by the Bayh-Dole Act, the purpose of the invention disclosure is to notify the University of the technology and to determine if it is patentable and/or commercially viable. CSURF is the University's technology transfer agent, and handles all aspects of the market/invention assessment, commercialization strategies, intellectual property protection, and out-licensing in coordination with the VPR (and the Associate VPR, who serves as the University's Patent Officer). CSURF will evaluate the Invention Disclosure and determine if a public disclosure has occurred or when an anticipated public disclosure will take place. This date is important as it establishes a deadline by which a patent application must be filed to preserve patentability within the U.S. and if foreign patent protection is required or, if the invention arises out of federally sponsored research, a date by which the University has to relinquish rights back to the federal agency.

Under the United States Patent and Trademark Office (USPTO) rules, patentability may be lost by premature public disclosure of the invention. Public disclosure occurs when the invention is described in a public forum such as presentation, publication, poster session etc. with enough detail to enable the audience to be able to practice the invention being described. Public disclosure also occurs during verbal and other discussions of the technology with entities external to CSU, including but not limited to: other universities, industry, government agencies, and individuals not employed by the university. In such cases, public disclosure can be prevented through use of a mutual confidential nondisclosure agreement (NDA), which the University or CSURF may execute with an outside sponsor or party in order to allow for confidential collaboration. NDAs should be executed before multi-party collaborations and discussions are undertaken.

This disclosure and review process is intended to provide the inventors with an initial indication of the extent and type of protection that would be available and can be divided into four individual steps:

- A preliminary prior art search and cursory market assessment are performed by CSURF. These activities provide an initial indication of the scope of prior art and the protection that may be obtainable. These results are discussed with the inventors, and additional input may be requested by CSURF at that point in time.
- The inventors carefully review these initial results to determine the relevance of the prior art compared to the invention disclosed.
- Additional searches may be performed to better assess patentability and potential commercial value. The assistance of the inventors is critical to the success of the process, as they are best able to evaluate the relevance of any patent search.

• Based on the outcome of the search, additional research may be required to develop supporting data and submitting a supplemental disclosure at a later date.

When evaluating the extent and type of protection available, CSURF may also identify companies that may be interested in licensing the technology or are willing to serve as potential commercialization partners. Likewise, CSURF can assist with identification of potential industry partners who may be willing to fund additional development of the technology via sponsored research agreements with CSU. This process will usually include the following steps:

- CSURF, in conjunction with the inventors, develops a non-confidential description of the invention that can be used to "market" the technology to prospective licensees and/or partners, without disclosing enough detail to negatively impact patentability.
- CSURF performs a more exhaustive market assessment to determine if there are any competing technologies, determines potential market size, and determines the differences and advantages of the invention in relation to existing technologies. With input from the inventors, CSURF develops a list of potential partners for commercialization or licensees.
- CSURF then markets the technology to prospective licensees to assess their interest in commercializing the invention.
- CSURF may consult patent counsel for assistance in determining patentability and preparing for a patent application to be made to the US Patent Office.
- A patent application may be filed if there is sufficient interest from a company in licensing the invention, or if the market opportunity appears promising. This may be in the form of a utility patent application or a provisional patent application, depending on multiple factors.
- The patent application is typically filed concurrently with negotiating terms for the license. At this point, the potential licensee(s) can become a part of "the team" in determining the optimal protection strategy. CSURF views technology transfer as a collaboration requiring participation and input from the inventors as well as the potential licensees and/or commercialization partners.
- A provisional patent application may be filed instead of a utility patent application. This type of application establishes the invention priority date and can be converted to a utility patent application within a one-year period after filing. A provisional patent application provides additional time to perfect and assess the invention, produce additional research results in support of the claims and find a partner for commercialization.
- Should CSURF determine that a patent application should not be filed, a recommendation will be made to VPR (Patent Officer) that the rights in the invention be returned to the inventor, who may decide to seek patent protection on his or her own.
- Once a patent is filed and licenses are granted for the commercialization of the invention, royalties are received by CSURF and distributed in accordance with <u>Section J</u>. Currently the distribution of royalties is as follows:

Distribution of Royalties

Net royalties shall be distributed according to the following schedule:

Inventor(s)	30%
Vice President for Research	15%
Inventors' College/Department	15%
CSURF	40%

What is Patentable?

According to patent statutes, any person who "invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent." "Process" is defined by law as an act or method, and primarily addresses industrial and/or technical processes. "Composition of matter" relates to chemical compositions including mixtures of ingredients as well as new chemical compounds. These classes of subject matter taken together include practically all products that can be made and the processes for making the products.

Patent law states that the invention must be "new", "useful", "non-obvious" and "enabling." In the broadest sense, the "new" or novelty requirement states that the technology must not have been available to the public prior to the patent application being filed. The requirement that the invention be "useful," states that a technology must have utility to perform the intended purpose. The "enabling" requirement states that the technology must be described in sufficient detail and in the "best mode of practice" known at the time the patent application is filed. "Non-obviousness" means that a person with "ordinary skill in the art" would not be likely to develop the same invention knowing all there was to know in the prior art. Of all the requirements, this tends to be the most difficult requirement to satisfy, as it is a theoretical standard.

Laws of nature, physical phenomena and abstract ideas are not patentable subject matter. The Atomic Energy Act of 1954 excludes the patenting of inventions useful solely in the utilization of special nuclear material or atomic energy for atomic weapons. However, scholarly works containing the tangible expression of the author's ideas about these subjects may still be protected under copyright laws.

A patent cannot be obtained upon a mere idea or suggestion. A patent is only granted upon full disclosure that enables the production of a new machine, manufacturing method, biotechnology product, etc. A complete description of the actual invention is required for a patent and generally must include "benchwork," or the reduction to actual practice, rather than a mere conceptual description.

Generally, any of the following may qualify technology for patenting:

- New, useful, and non-obvious ideas and their reduction to practice that results in new devices, processes, and/or methods of producing new and/or useful industrial operation and materials,
- Any produced article useful in trade,
- Any composition of matter, including chemical compounds and mixtures,
- Any new plant, animal, or other organism,
- Any new design in connection with the production or manufacture or an article, and

• Any improvement upon existing processes or systems.

Copyrights

In general, the University's copyright policy as contained in <u>Section J</u> controls the ownership of rights, equity, and ownership in scholarly works created at CSU. Academic Materials and other scholarly works such as textbooks, articles, works of fiction, musical and artistic works, and the like, created without state resources, time or personnel, remain the property of the creators. Royalties derived from such "traditional works" are not shared with the University unless they constitute works for hire that were specially commissioned for the University, produced pursuant to a written contract or agreement, or for special compensation. Negotiations and liability associated with such transactions rest entirely with the author(s) – NOT the University. University personnel are encouraged to consult with their own attorneys for advice related to "traditional works" and for consulting activities. Specific situations or questions should be addressed to the Office of the Vice President for Research.

Works created by Members using University resources, or as commissioned works, works for hire, or for special compensation, belong to the University. The potential monetary value and commercialization opportunities for such works are determined through a similar process as described above for patentable inventions. Under United States copyright law (and unlike under the patent law), original works of authorship are immediately protected by copyright when expressed in a tangible medium such as written work, sound recording, or film. Copyright registration is not required to benefit from such protection, but registration is required before legal action may be taken to enforce the copyright, and offers additional protections in the event that other works are produced which closely resemble the work created by the Member.

Regardless of whether the Member believes that the Works will ultimately be determined to belong solely to the creator(s), or to the University, all Works created by Members during their employment must be disclosed to the Vice President for Research in a timely manner so that the Works can be appropriately classified, and the relative interests of the parties can be determined. Procedures for disclosure are set forth in <u>Section J</u>, as noted above. When a determination is made that a Work belongs to the University, the Member(s) who created it nevertheless retain certain rights in such Work, unless expressly waived. These rights are enumerated in <u>Section J.3.1</u>. For further information and guidance on these policies, consult the Manual and contact the Office of the Vice President for Research.