

Inventor's guide to
technology transfer
at the University of Cincinnati



Where Next Happens

UNIVERSITY OF CINCINNATI - OFFICE OF INNOVATION - TECHNOLOGY TRANSFER GUIDE

University of Cincinnati's Office of Innovation was formed in 2017 when the University's 30th president, Dr. Neville G. Pinto, completed a new strategic direction called "Next Lives Here" with an Innovation Agenda as one of its primary platforms. The office oversees all the university's intellectual property, technology transfer and commercialization, and the 1819 Innovation Hub.

In the Office of Innovation, we accelerate passion and ideas into working prototypes, startups, patents, industry partnerships, and community and global impact. The Association of Public and Land-Grant Universities (APLU) recognized this by awarding the University of Cincinnati with its "Connections" prize and designating UC as an Innovation and Economic Prosperity (IEP) university in 2013. This was in recognition of UC working to advance public/private partnerships while also enhancing the student learning experience.

We achieve this at the 1819 Innovation Hub, the connecting place where UC meets the world and the world meets UC.

The Inventor's Guide to Technology Transfer outlines the essential elements of technology transfer at the University of Cincinnati.

This guide is organized to answer the most common questions we typically receive from our research community and provides a broad overview of the technology transfer process and services available for researchers.

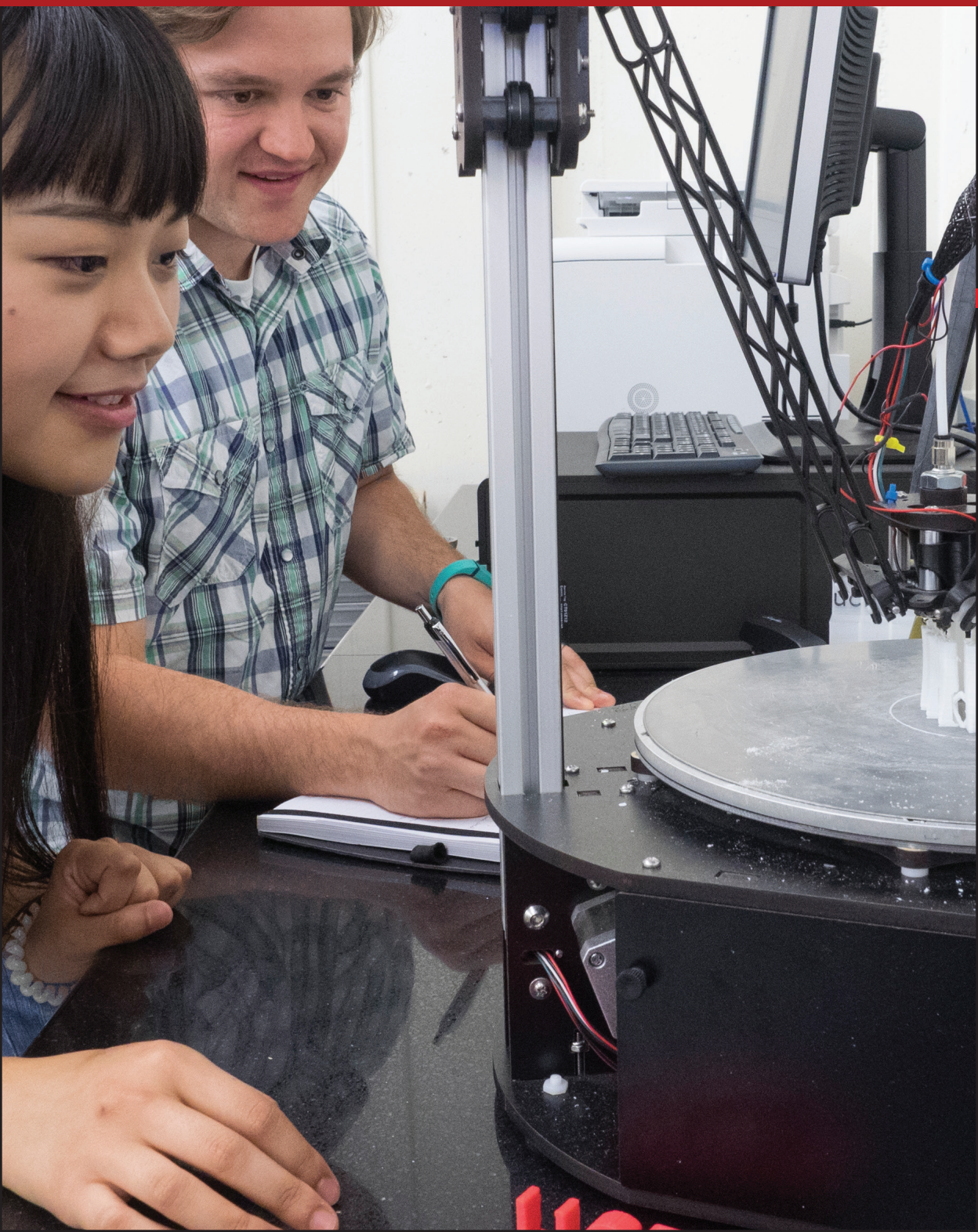
For more information, visit www.innovation.uc.edu or call the Office of Innovation at (513) 558-6293.

Note: This guide is based on the "Inventor's Guide to Technology Transfer" originally published by the University of Michigan with adaptations for Massachusetts Institute of Technology, Case Western Reserve University, and the University of Cincinnati. We are very grateful to Ken Nisbet, Robin Rasor, Lita Nelson and their staffs for their kind permission to use their excellent material and to the University of Michigan for the use of its copyright.



TABLE OF CONTENTS

| | | |
|------------|---|----|
| Chapter 1 | OVERVIEW | 5 |
| Chapter 2 | TECH TRANSFER PROCESS AT A GLANCE | 9 |
| Chapter 3 | RESEARCH CONSIDERATIONS AND TRANSFER AGREEMENTS | 15 |
| Chapter 4 | INVENTION DISCLOSURES | 19 |
| Chapter 5 | OWNERSHIP OF INTELLECTUAL PROPERTY | 23 |
| Chapter 6 | ASSESSMENT OF THE INVENTION DISCLOSURE | 26 |
| Chapter 7 | PATENTS AND OTHER LEGAL PROTECTION | 29 |
| Chapter 8 | MARKETING TO FIND A LICENSEE | 36 |
| Chapter 9 | LICENSE AGREEMENTS | 39 |
| Chapter 10 | CONSIDERATIONS FOR A START-UP COMPANY | 43 |
| Chapter 11 | NAVIGATING CONFLICT OF INTEREST | 45 |
| Chapter 12 | REVENUE DISTRIBUTIONS | 47 |
| Chapter 13 | REINVESTMENTS & RELATIONSHIPS | 49 |



CHAPTER 1

TECHNOLOGY TRANSFER OVERVIEW

What is technology transfer?

Technology transfer is the movement of knowledge and discoveries to the general public. It can occur through publications, educating students, exchanges at conferences, and relationships with industry. For the purposes of this guide, however, technology transfer refers to the formal licensing of technology to third parties, under the guidance of professionals employed by universities, research foundations and businesses.

How does UC's Office of Innovation (OOI) participate in technology transfer?

Within the Office of Innovation, the technology transfer team is comprised of specialists in licensing, business development, community impact, and legal matters, all of whom are widely experienced in transferring technologies across a broad array of fields, including the physical sciences, life sciences and information technology. We are committed to serving our innovators with full-spectrum intellectual property services, and leading the successful commercialization of innovations created at UC. As stewards of the intellectual property assets of UC, our office has resources to protect the rights of both the inventor and the university, and to assess the commercial potential of new discoveries. We also seek to educate the university faculty, staff, students and the regional community on issues such as intellectual property, licensing practices, and the formation of new ventures.

Why would a researcher want to participate in the technology transfer process?

The reasons are unique to each researcher and may include:

- Making a positive impact on society
- Feeling a sense of personal fulfillment
- Achieving recognition and financial reward
- Generating additional department funding
- Meeting the obligations of a research contract
- Attracting research sponsors
- Creating educational opportunities for students
- Linking students to future job opportunities
- Applying research to real world problems

How is technology transferred?

Technology is typically transferred through an agreement in which UC grants to a third party a license to use UC's intellectual property rights in the defined technology, sometimes for a particular field of use and/or region of the world. Such a grant may be exclusive or non-exclusive. The licensee (the third party licensing the technology) may be an established company or a new business start-up. Licenses include terms that require the licensee to meet certain performance requirements and to make financial payments to UC. These payments are shared with the inventors and also distributed to departments and colleges to provide support for further research, education, and participation in the technology transfer process.

What is the Bayh-Dole Act?

The U.S. Bayh-Dole Act of 1980 allows universities and other non-profit institutions to have ownership rights to discoveries resulting from federally-funded research, provided certain obligations are met. These obligations include making efforts to protect (when appropriate) and commercialize the discoveries, submitting progress reports to the funding agency, giving preference to small businesses that demonstrate sufficient capability, and sharing any resulting revenues with the inventors. The Bayh-Dole Act is credited with stimulating interest in technology transfer activities and generating increasing research, technology commercialization, educational opportunities and economic development.

Note: Throughout this manual, unless specifically described otherwise, the term 'inventor' includes individuals listed on a patent as well as contributors who have shared in creating the value of intellectual property that is not patented.



"We want entrepreneurial-minded faculty to understand that we've done a tremendous amount to reduce the friction associated with commercializing their intellectual property. You don't have to go to Silicon Valley. You can make it happen here. We want our faculty and students to achieve great things, and we believe the university will benefit as a result." – David J. Adams, UC Chief Innovation Officer



CHAPTER 2

TECHNOLOGY TRANSFER PROCESS

How do I work with the Office of Innovation?

We encourage you to contact the Office of Innovation during your discovery process to ensure you are aware of the options that will best leverage the commercial potential of your research. OOI staff members are trained to assist you with questions related to marketability, funding sources, commercial partners, patenting and other protection methods, new business start-up considerations, UC policies and procedures, and much more. Our team approach provides you with an assigned licensing specialist supported by University legal counsel, and if a new business start-up is being considered, a referral to our Venture Lab accelerator program. Each technology disclosed is assigned a licensing associate who works with the inventor throughout the process.

What are the typical steps in the process?

The process of technology transfer is summarized in the steps that follow. Note that these steps can vary in sequence and often occur simultaneously.

10 STEPS TO COMMERCIALIZATION

1. **RESEARCH:** Observations and experiments during research activities often lead to discoveries and inventions. An invention is any useful process, machine, composition of matter, or any new or useful improvement of the same. Often, multiple researchers may have contributed to the invention.

2. **PRE-DISCLOSURE:** Consider early contact with OOI to discuss your idea and to gather guidance with respect to the disclosure, evaluation, and protection processes described below. This can be accomplished through our 'Share Your Idea' form found on our website at www.innovation.uc.edu.

3. **INVENTION DISCLOSURE FORM:** This is a written notice of invention to OOI that begins the formal technology transfer process. An invention disclosure remains a confidential document and should fully detail your invention so that options for commercialization can be evaluated and pursued.

4. **ASSESSMENT:** This is the period in which your licensing associate reviews (with your input) the invention disclosure, conducts patent searches (if applicable), and analyzes the market and competitive technologies to determine the invention's commercialization potential. The evaluation process will guide our strategy on whether to focus on licensing to an existing company or creating a new business start-up.

5. **PROTECTION:** This is the process in which protection for an invention is pursued to encourage third party interest in commercialization. Patent protection, a common legal protection method, begins with the filing of a patent application with the U.S. Patent Office and, when appropriate, foreign patent offices. Once a patent application has been filed, it will require several years and tens of thousands of dollars to obtain issued U.S. and foreign patents. Other protection options include copyright and trademark.

6. **MARKETING:** With your involvement, the OOI staff identify candidate companies that have the expertise, resources, and business networks to bring the technology to market. This may involve partnering with an existing company or forming a start-up. Your active involvement can dramatically enhance this process.

7. **AGREEMENTS:** A license agreement is a contract between UC and a third party in which UC's rights to a technology are licensed (without relinquishing ownership) for financial and other benefits. A license agreement is used with both a new start-up business and an established company. An option agreement is sometimes used to enable a third party to evaluate the technology and its market potential for a limited time before licensing. An assignment agreement is used only in circumstances where UC is willing to relinquish its rights, such as in a waiver situation.

a. **FORM A START-UP:** If creation of a new business start-up has been chosen as the optimal commercialization path, OOI will work to assist the founders in planning, creating and finding funding for the start-up. To streamline the licensing process to form a start-up, UC created an express license and option for Venture Lab participants.

b. **EXISTING BUSINESS:** If the invention will best be commercialized by one or more existing companies, the IP Licensing associate will seek potential licensees and work to identify mutual interests, goals and plans to fully commercialize this technology.

c. **WAIVE BACK TO INVENTOR(s):** If OOI chooses not to retain title to an invention after evaluating the technology, ownership of the invention will be released back to the inventor(s).

8. **COMMERCIALIZATION:** The licensee company (start-up or existing) continues the advancement of the technology and makes other business investments to develop the product or service. This step may entail further development, regulatory approvals, sales and marketing, support, training, and other activities.

9. **REVENUE:** Revenues received by UC from licensees are distributed to inventors' departments and colleges to fund additional research and education, and to encourage further participation in the technology transfer process.

10. **REINVEST IN RESEARCH:** Royalties shared throughout the University collectively foster the creation of the next generation of research and inventors.

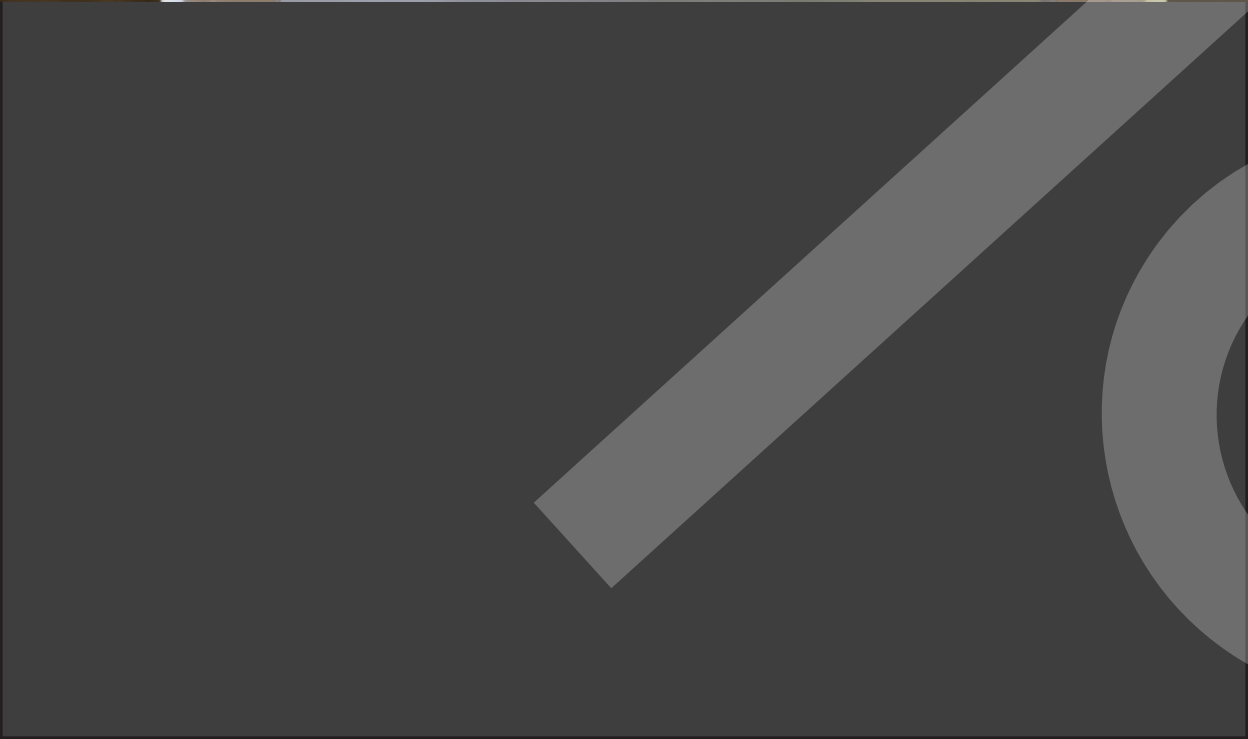
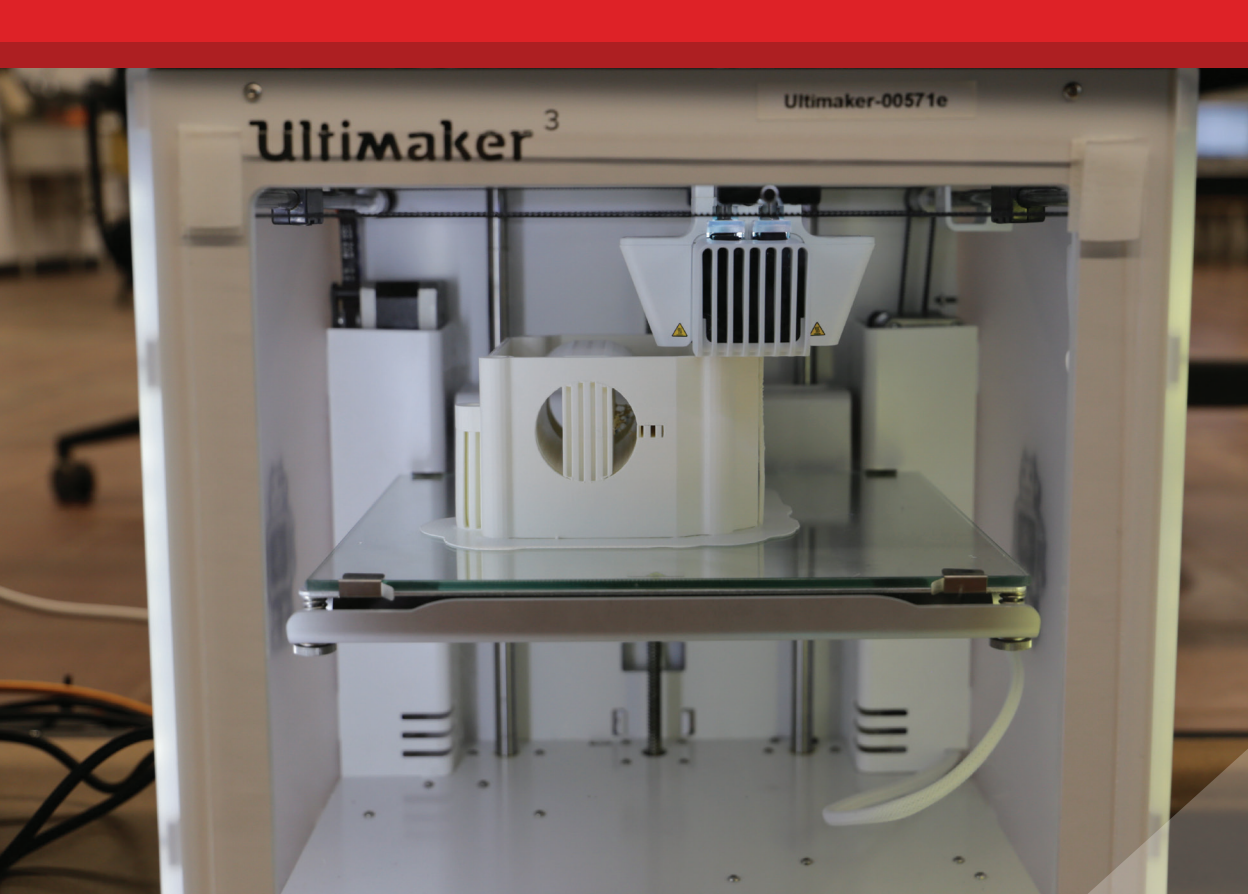


How long does the technology transfer process take?

The process of protecting the technology and finding the right licensing partner may take months – or even years – to complete. The amount of time will depend on the development stage of the technology, the market for the technology, competing technologies, the amount of work needed to bring a new concept to market-ready status, and the resources and willingness of the licensees and the inventors.

How can I help in this process?

- Contact the Office of Innovation at 513-558-6293 when you believe you have a scientific or technical observation with potential commercial or research value.
- Complete and submit the UC Invention Disclosure Form in sufficient time to file a patent application before publicly disclosing your technology or publishing a manuscript— preferably before submitting the manuscript for publication.
- To avoid risking your patent rights and possibly hindering the opportunity to market your invention, contact OOI before holding any discussions with people outside the UC community; if a patent application has not yet been filed, we can give you a Non-Disclosure Agreement for the party to sign before you describe your invention to them.
- In the first meeting with your licensing associate, tell us about any companies and contacts you believe might be interested in your innovation or who may have already contacted you about your invention. Studies have shown that over 70% of all licenses are executed with commercial entities known by the inventor, so your contacts can be extremely useful.
- Respond to OOI and patent counsel requests. While some aspects of the patent and licensing process will require significant participation on your part, we will strive to make efficient use of your valuable time.
- Keep OOI informed of upcoming publications or interactions with companies related to your intellectual property.



CHAPTER 3

RESEARCH CONSIDERATIONS and MATERIAL TRANSFER AGREEMENTS

Will I be able to publish the results of my research and still protect the commercial value of my intellectual property?

Yes, but since patent rights are affected by these activities, it is best to submit an Invention Disclosure Form well before any public communication or disclosure of the invention. There are significant differences between the U.S. and other countries as to how early publication affects a potential patent. Once publicly disclosed (published or presented in some form), an invention may have restricted or minimal potential for patent protection outside of the United States. Be sure to inform the licensing associate assigned to you of any imminent or prior presentation, lecture, poster, abstract, website description, research proposal submission, dissertation/masters thesis, publication, or other public presentation of the invention.

May I use material or intellectual property from others in my research?

Yes, but it is important to document carefully the date and conditions of use so that we can determine if this use may influence the commercialization potential of your subsequent research results. If you wish to obtain materials from outside collaborators, an incoming Material Transfer Agreement (MTA) should be completed. Contact the Office of Innovation for more information on incoming MTAs.

Will I be able to share material, research tools or intellectual property with others to further their research?

Yes. However, it is imperative to document items that are to be shared with others and the conditions of use. If you wish to send materials to an outside collaborator, an outgoing Material Transfer Agreement (MTA) should be completed for this purpose. It also may be necessary to have a Non-Disclosure Agreement completed to protect your research results or intellectual property. Contact the OOI representative at www.innovation.uc.edu or 513-558-6293 to assist you in completing outgoing MTAs.

What rights does a research sponsor have to any discoveries associated with my research?

The Sponsored Research Agreement should specify the intellectual property (IP) rights of the sponsor. UC has developed three potential ways to handle IP that results from sponsored research. The tiers are created for (1) companies that don't believe there will be any IP generated during a project and want to start collaborating quickly; (2) companies that want to have an exclusive license to any IP with clearly defined royalty; or (3) companies that want to own any IP created during the project. The sponsor generally will not have contractual rights to discoveries that are clearly outside the scope of the research, and which do not use funds from the research agreement. It is important to define the scope of work within a research agreement and to identify any existing IP that might be used during the project. The OOI is here to help with these IP discussions.

Sponsored research agreements are handled by the Office of Sponsored Research Services (SRS) which works closely with OOI on IP issues in sponsored research agreements. If you have questions about sponsored research, please visit the OSP website at www.research.uc.edu or contact them by calling (513) 556-5969.

What about consulting?

When researchers enter into consulting agreements (for work to be done without use of UC facilities), they are deemed to be acting outside of the scope of their employment. Therefore, consulting arrangements are not negotiated by UC nor formally reviewed by OOI, SRS or Legal. Researchers who enter into consulting agreements should familiarize themselves with UC policies relevant to consulting activities. The researcher is expected to ensure that the terms of the consulting arrangement are consistent with UC policies, including those related to IP ownership, employment responsibilities and use of intellectual property. OOI is available to provide informal advice on how your consulting agreement relates to UC intellectual property you have created.



CHAPTER 4

INVENTION DISCLOSURES

What is an Invention Disclosure?

An Invention Disclosure is a description of your invention or development that is provided to the Office of Innovation. The Disclosure should also list all sponsors of the research and should include any other information necessary to begin pursuing protection and commercialization activities. It is critical that you note the date of any upcoming publication or other public disclosure describing the invention. To initiate the process, mail, email, or fax the Invention Disclosure form to our office. This document will be treated as "UC Confidential." You will usually be contacted by the assigned licensing associate shortly after your submission of the Disclosure to discuss the invention and its potential commercial applications.

Why should I submit an Invention Disclosure?

When you disclose your invention to OOI, it starts a process that could lead to the commercialization of your technology. It connects you to the talent and resources needed to take your idea forward. On the part of OOI, this may involve beginning the legal protection process and working to identify outside development partners. If government funds were used for your research, you are required to disclose any inventions created using those funds, which will be reported to the sponsoring agency by the OOI.

How do I know if my discovery is an invention? Should I be submitting an Invention Disclosure?

You are encouraged to submit a 'Share Your Idea' form for all ideas that you feel may solve a significant problem and/or have significant value. If you are in doubt, contact the Office of Innovation to discuss the potential idea. We can also advise on alternatives to licensing.



When should I complete an Invention Disclosure?

You should complete an Invention Disclosure Form whenever you feel you have discovered something unique with possible commercial value. This should be done well before presenting the discovery through publications, poster sessions, conferences, press releases, or other communications. Once publicly disclosed (i.e., published or presented in some form to non-UC listeners), an invention may have limited or no patent protection available.

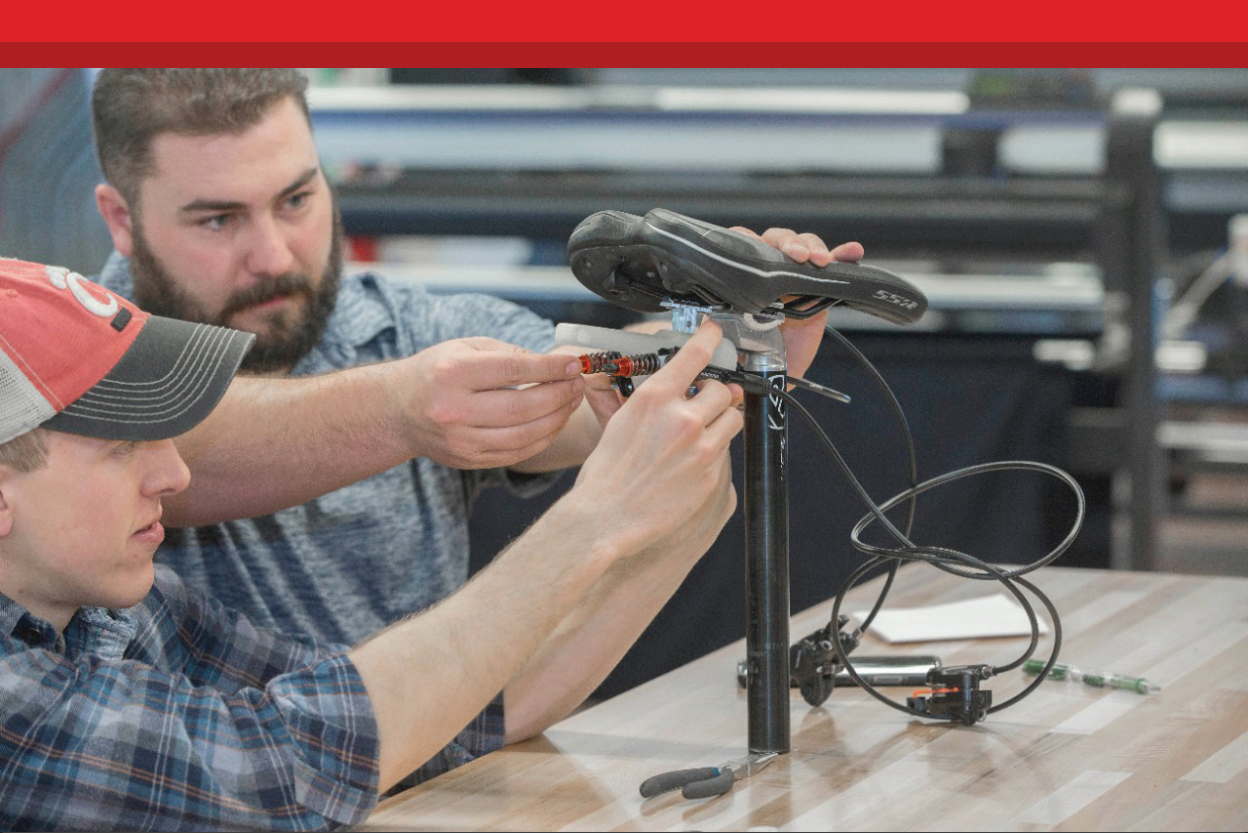
Should I disclose research tools?

Typically, research tools are materials such as antibodies, vectors, plasmids, cell lines, mice, and other materials used as “tools” in the research process. Research tools do not necessarily need to be protected by patents in order to be licensed to commercial third parties and generate revenue for your laboratory. Other research tools (such as new separation processes) may need to be patented for a company to invest in the engineering development to make the process broadly useful. If you have research tools that you believe to be valuable, OOI will work with you to develop the appropriate protection, licensing, and distribution strategy.

We will also help you in distributing research materials at zero or minimal charge to other academic collaborators while preserving the materials’ commercial potential.

How do I submit an Invention Disclosure?

You can download a disclosure form and simple instructions from www.innovation.uc.edu. Invention Disclosures are assigned to an OOI licensing associate. If you have any questions, call OOI at 513-558-6293, or email your respective licensing associate.



CHAPTER 5

OWNERSHIP of INTELLECTUAL PROPERTY

What is Intellectual Property?

Intellectual property is an invention and/or material that may be protected under patent, trademark and/or copyright laws.

Who owns what I create?

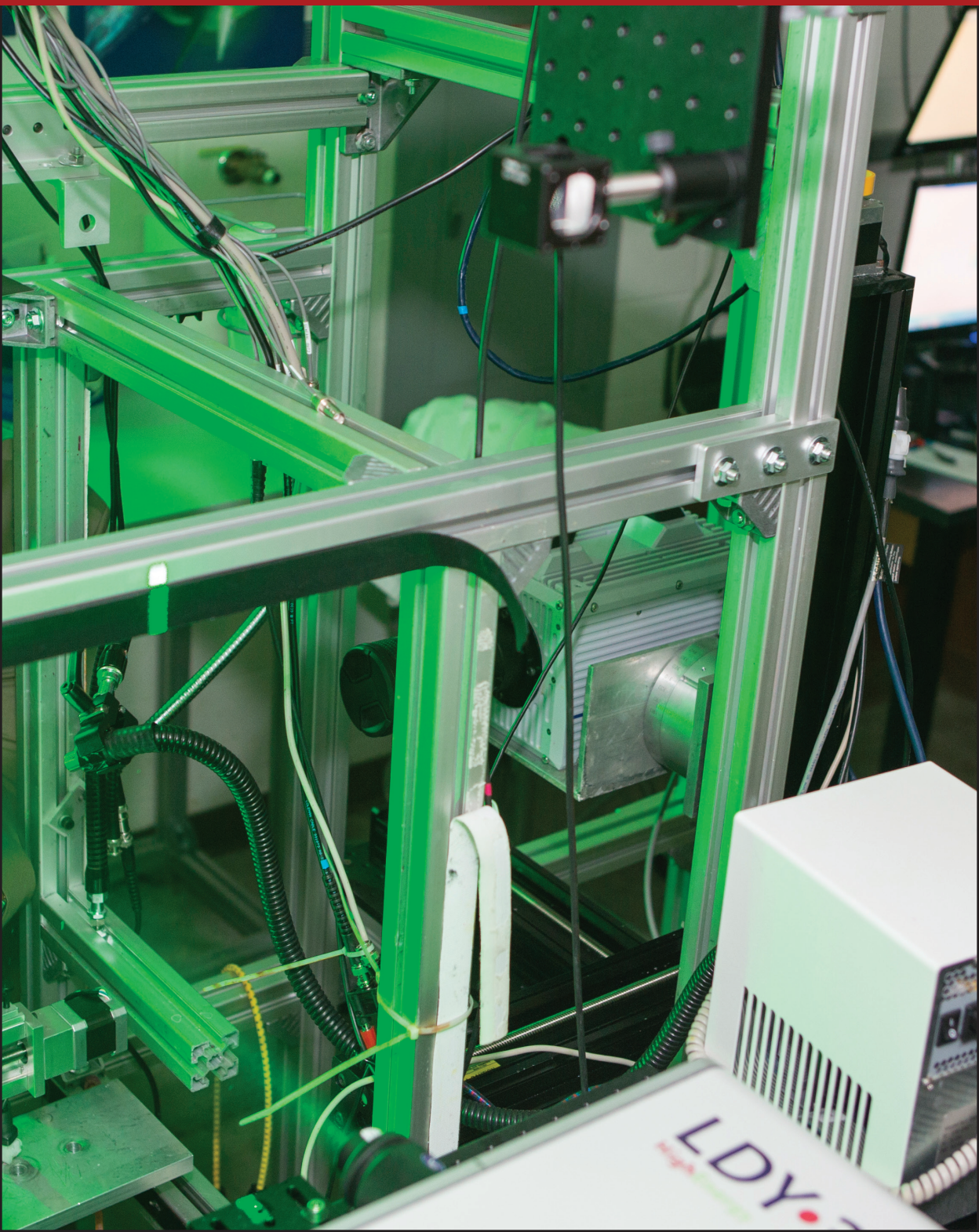
Ownership depends upon the employment status of the creators of the invention and their use of UC facilities. Considerations include:

- What is the source of the funds or resources used to produce the invention?
- What was the employment status of the creators at the time the intellectual property was made?
- What are the terms of any agreement related to the creation of the intellectual property?

As a general rule, UC owns inventions made by its employees while working under a grant or contract to UC or using UC resources.

Do most students own all their IP?

Student IP is IP solely devolved by UC students and is typically released by UC to the student creators at the appropriate time, unless 1) the invention was created by a student in a capacity as a UC employee, 2) the invention was created using significant UC resources, or 3) the invention was created under a contract or grant to UC. (For example, taking a regular class or using a library is not a significant use of resources.) New IP that is developed as a result of Accelerator funding (e.g., software) is owned by UC and may require a license from the institution to commercialize.



Where can I find UC's policy on ownership of inventions?

The policy is stated in the UC Patent Policy, which is defined by University Rule 3361: 10-19-01 Patents and Copyrights: policy on inventions and discoveries, which can be located on our website at www.innovation.uc.edu under the FAQ's within the Ideas/Inventions section.

Who owns rights to discoveries made while I am consulting?

The ownership of inventions made while consulting for an outside company depends on the terms of your consulting contract with the company. It is important to clearly define the scope of work within consulting contracts to minimize any issues with inventions from UC research. If you have questions, OOI is available for informal advice.

Should I list visiting scientists on my Invention Disclosure?

All contributors to the ideas leading to a discovery should be mentioned in your disclosure, even if they are not employees. The Office of Innovation, along with legal counsel, will determine the rights of such persons and institutions. It is prudent to discuss with the Office of Innovation all working relationships (preferably before they begin) to understand the implications for any subsequent inventions.

Can a student contribute to an invention?

Yes, a student can even be the sole contributor or inventor. The policy for ownership of an invention developed with or by a student is the same as for any other member of UC. It depends on 1) whether the invention was created by a student in a capacity as a UC employee, 2) whether the invention was created using UC resources, and 3) whether the invention was created under a contract or grant to UC.

ASSESSMENT of the INVENTION DISCLOSURE

How does the Office of Innovation assess my Invention Disclosure?

Licensing associates, often with the help of inventors, examine each invention disclosure to review the feasibility of the technology, the strength and cost of protection, and the size and scope of the market potential. This assessment may also include consideration of whether the IP can be the basis for a new business start-up.

If my conviction is that all IP should be licensed non-exclusively to all potential users for the public good, will UC honor my request?

The Office of Innovation will work with you to develop the appropriate commercialization strategy for your invention. Some technologies lend themselves to non-exclusive licensing (licensing to multiple third parties), while others will only reach the commercial marketplace, and therefore the public, if they are licensed on an exclusive basis. We will try to accommodate inventors' commercialization wishes consistent with the objectives of co-inventors and consistent with obligations to sponsors or other third parties.

How do we decide whether to commercialize with a traditional or an "open source" license for software?

Generally, the Office of Innovation supports those UC software developers who choose to essentially give their programs away through open source mechanisms, provided UC retains the right to distribute the program freely and that "open sourcing" is consistent with obligations to third parties, such as spon-



sors. However, since there are many different varieties of “open sourcing,” it is recommended that you contact the Office of Innovation to obtain advice on appropriate notices to put on your open-sourced software.

Is an invention ever reassigned to an Inventor?

If the Office of Innovation decides not to pursue patent protection and/or chooses not to actively market the invention, UC may, upon request by the inventor(s), reassign (transfer ownership) to the inventor(s). Reassignment of inventions funded from U.S. government sources requires the government’s prior approval. Among the key factors in UC deciding to reassign are whether additional UC resources or private resources could best improve marketability and whether all inventors agree with the reassignment plan. Upon reassignment, the inventor(s) are responsible for payment of all further development, patenting and marketing expenses. UC may also require you to share with UC some of any revenue you derive from the commercialization of the invention. If additional UC resources are used to further develop the invention, UC may reassert ownership interest in the invention.



CHAPTER 7

PATENTS and OTHER LEGAL PROTECTION

What is a patent?

A patent gives the holder the right to exclude others from making, using, selling, offering to sell, and importing any patented invention. Note, however, that a patent does not provide the holder any affirmative right to practice a technology, since it may fall under a broader patent owned by others; instead, your patent only provides the right to exclude others from practicing it. Patent claims are the legal definition of an inventor's protectable invention.

What type of subject matter can be patented?

Patentable subject matter includes processes, machines, compositions of matter, articles, some computer programs, and methods (including methods of making compositions, methods of making articles, and even methods of performing business).

Can someone patent a naturally occurring substance?

Not in its natural state. However, a natural substance that has never before been isolated or known may be patentable in some instances, but only in its isolated form (since the isolated form had never been known before). A variation of a naturally occurring substance may be patentable if an inventor is able to demonstrate substantial non-obvious modifications that offer significant advantages in using the variant.

What is the United States Patent and Trademark Office (PTO)?

The PTO is the federal agency, organized under the Department of Commerce, that administers patents on behalf of the government. The PTO employs patent examiners skilled in all technical fields in order to appraise patent applications. The PTO also issues federal trademark registrations.

What is the definition of an inventor on a patent and who determines this?

Under U.S. law, an inventor is a person who takes part in the conception of the ideas in the patent claims of a patent application. Thus, inventorship of a patent application may change as the patent claims are changed during prosecution of the application. An employer or person who furnishes money to build or practice an invention is not an inventor. Inventorship may require an intricate legal determination by the patent attorney prosecuting the application.

Who is responsible for patenting?

The Office of Innovation works with a combination of in-house and outside patent counsel for patent protection, thus ensuring access to patent specialists in diverse technology areas. Inventors work with the patent counsel in drafting the patent applications and in responding to patent offices in the countries in which patents are filed.

What is the patenting process?

Patent applications are generally drafted by a patent attorney or a patent agent (a non-attorney with a science education licensed to practice by the PTO). The patent attorney generally will ask you to review an application before it is filed and will also ask you questions about inventorship of the application claims. At the time an application is filed, the patent attorney will ask the inventor(s) to sign an Inventor's Declaration and an Assignment under which the inventor(s) assigns his or her rights in the patent to UC. In about 18-24 months, depending on the technology, the patent attorney will receive written notice from the PTO

as to whether the application and its claims have been accepted as patentable in the form as filed. More often than not, the PTO rejects the application because the claims are not patentable over the “prior art” (anything that workers in the field have made or publicly disclosed in the past). The letter sent by the PTO is referred to as an Office Action. If the application is rejected, the patent attorney must file a written response, usually within three to six months. Generally, the attorney may amend the claims and/or point out why the PTO’s position is incorrect. This procedure is referred to as patent prosecution. Often it will take two official actions and two responses by the patent attorney (and sometimes more) before the application is resolved. During the prosecution process, input from the inventor(s) is often needed to confirm the patent attorney’s understanding of the technical aspects of the invention and/or the prior art cited against the application. The PTO holds patent applications confidential until published by the PTO, 18 months after initial filing. The time between the initial filing of the patent application and the issuance of the patent is the “patent pending” period.

What is the difference between a provisional patent application and a regular (or “utility”) patent application?

In certain circumstances, U.S. provisional patent applications can provide a tool for preserving patent rights while temporarily reducing costs and perhaps providing extra time to prepare a regular application. This occurs because the application is not examined during the year in which it is pending and claims are not required. A regular U.S. application and related foreign applications must be filed within one year of the provisional filing in order to receive the benefit of the provisional application’s early filing date. However, since an applicant only receives the benefit of the earlier filing date for material that is adequately described and enabled in the provisional application, we may still need you to work with a patent attorney even when an application is filed as a provisional.

What is different about foreign patent protection?

Foreign patent protection is subject to the laws of each individual country, although in a general sense the process works much the same as it does in the United States. In most foreign countries, however, an inventor will lose any patent rights if he or she publicly discloses the invention prior to filing of the first (or “priority”) application in one country. In contrast, the United States has a one-year grace period after publication in which a patent may be filed.

Is there such a thing as an international patent?

Although an international patent does not exist, an international agreement known as the Patent Cooperation Treaty (PCT) provides a streamlined filing procedure for most industrialized nations. For U.S. applicants, a PCT application is generally filed one year after the corresponding U.S. application (either provisional or regular) has been submitted. The PCT application must later be filed in the national patent office of any country in which the applicant wishes to seek patent protection, generally within 30 months of the earliest claimed filing date.

What is gained by filing an application under the PCT?

The PCT application provides two advantages. First, it delays the need to file costly foreign applications until the 30-month date, often after an applicant has the opportunity to further develop, evaluate and/or market the invention for licensing. Second, the international preliminary examination often allows an applicant to simplify the patent prosecution process by having a single examiner speak to the patentability of the claims, which can save significant costs in prosecuting foreign patent applications. Another important international treaty called the Paris Convention permits a patent application filed in a second country (or a PCT application) to claim the benefit of the filing date of an application filed in the first country, provided that a so-called “convention application” is filed in foreign countries (or as a PCT) within one year of the first filing date of the U.S. application.

What is the timeline of the patenting process and resulting protection?

Currently, the average U.S. utility patent application is pending for about three years, though inventors in the biotech and computer fields should plan on a longer waiting period. Once a patent is issued, it is enforceable for 20 years from the initial filing of the application that resulted in the patent, assuming that PTO-mandated maintenance fees are paid.

Why does UC protect some intellectual property through patenting?

Potential commercialization partners (licensees) often require patent protection to protect the commercial partner's often sizable investment required to bring the technology to market. Due to their expense, patent applications are not possible for all UC intellectual property. We carefully review the commercial potential for an invention before investing in the patent process. However, because the need for commencing a patent filing usually precedes finding a licensee, we look for creative and cost-effective ways to seek early protection for as many promising inventions as possible.

Who decides what gets protected?

The Office of Innovation and the inventor(s) together discuss relevant factors in deciding whether to file a patent application. Ultimately, the Office of Innovation makes the final decision as to whether to file.

What does it cost to file for and obtain a patent?

Filing a regular U.S. patent application may cost between \$20,000 to \$30,000. To obtain an issued patent may require an additional similar amount for patent prosecution. Filing and obtaining issued patents in other countries may cost \$20,000 or more per country. Also, once a patent is issued in the U.S or in foreign countries, certain maintenance fees are required to keep the patent alive.

What if I created the invention with someone from another institution or company?

Generally, the invention will be jointly owned between UC and the other institution or company. Each inventor will assign his or her rights to their employer. The Office of Innovation will work with the other institution to decide on management of the invention. Usually, if the other institution is a university or research institution, we will make an “inter-institutional” agreement that provides for one of the institutions to take the lead in protecting and licensing the invention, sharing of expenses associated with the patenting process, and allocating any licensing revenues.

Will UC initiate or continue patenting activity without an identified licensee?

Often UC accepts the risk of filing a patent application before a licensee has been identified. After UC’s rights have been licensed to a licensee, the licensee generally assumes the patenting expenses. At times we must decline further patent prosecution after a reasonable period (often two or three years) of attempting to identify a licensee.

What is a copyright and how is it useful?

Copyright is a form of protection provided by the laws of the United States and other countries to the authors of “original works of authorship.” This includes literary, dramatic, musical, artistic, and certain other intellectual works as well as computer software. This protection is available to both published and unpublished works. The Copyright Act generally gives the owner of the copyright the exclusive right to conduct and authorize various acts, including reproduction, public performance and making derivative works. Copyright protection is automatically secured when a work is fixed into a tangible medium such as a book, software code, video, etc. In some instances, UC registers copyrights, but generally not until a commercial product is ready for manufacture.

How do I represent a proper UC copyright notice?

Although copyrightable works do not require a copyright notice, we do recommend that you use one. For works owned by UC, use the following notice: "© 20XX University of Cincinnati. All rights reserved."

What is a trademark or service mark and how is it useful?

A trademark includes any word, name, symbol, device, or combination, that is used in commerce to identify and distinguish the goods of one manufacturer or seller from those manufactured or sold by others, and also to indicate the source of the goods. In short, a trademark is a brand name. A service mark is any word, name, symbol, device, or combination that is used, or intended to be used, in commerce to identify and distinguish the services of one provider from those of others and to indicate the source of the services.

What is trademark registration?

Trademark registration is a procedure in which the United States Patent and Trademark Office provides a determination of rights based upon legitimate use of the mark. However, it is not necessary to register a trademark or service mark to prevent others from infringing upon the trademark. Trademarks generally become protected as soon as they are adopted by an organization and used in commerce, even before registration. With a federal trademark registration, the registrant is presumed to be entitled to use the trademark throughout the United States for the goods or services for which the trademark is registered.

MARKETING to FIND a LICENSEE

How does the Office of Innovation market my inventions?

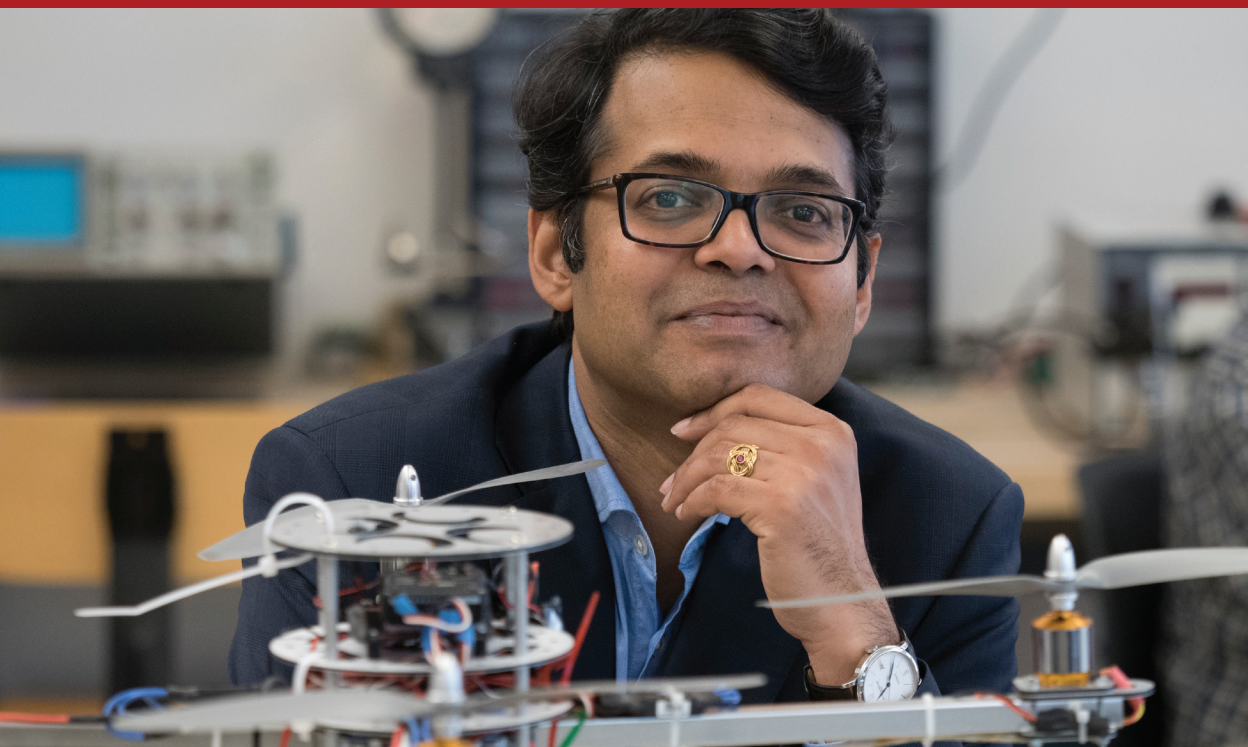
Licensing associates use many sources and strategies to identify potential licensees and market inventions. Sometimes existing relationships of the inventors, the Office of Innovation, and other researchers are useful in marketing an invention. Market research can also assist in identifying prospective licensees. In addition, we examine other complementary technologies and agreements to assist our efforts. Faculty publications and presentations are often excellent marketing tools as well.

How are most licensees found?

Studies have shown that 70% of licensees were known to the inventors. Thus research and consulting relationships are often a valuable source for licensees. Licensees are also identified through existing relationships of the OOI staff. We attempt to broaden these relationships through contacts obtained from personal networking and from website inquiries, market research, industry events and the cultivation of existing licensing relationships.

How long does it take to find a potential licensee?

It can take months and sometimes years to locate a potential licensee, depending on the attractiveness of the invention and the size and stage of development of the market. Most UC inventions tend to be in the early stage in the development cycle and thus require substantial commercialization investment, making it difficult to attract a licensee.



How can I assist in marketing my invention?

Your active involvement can dramatically improve the chances of matching an invention to an outside company. Your research and consulting relationships are often helpful in both identifying potential licensees and technology champions within companies. Once interested companies are identified, the inventor is the best person to describe the details of the invention and its technical advantages. The most successful technology transfer results are obtained when the inventor and the licensing professional work together as a team to market and promote use of the technology.

Can there be more than one licensee?

Yes, an invention can be licensed to multiple licensees, either non-exclusively to several companies or exclusively to several companies, each only for a unique field-of-use (application) or geography.



VRN

VIRTUAL REALITY TRAINING FOR REGISTERED NURSES



Introduction

The VRN project is a collaborative effort between the University of the West of England and the NHS to develop a virtual reality training module for registered nurses. The module is designed to provide a safe and controlled environment for nurses to practice their skills and knowledge in a virtual setting.

Project Objectives

The project aims to develop a virtual reality training module for registered nurses. The module is designed to provide a safe and controlled environment for nurses to practice their skills and knowledge in a virtual setting.

Project Scope

The project scope includes the development of a virtual reality training module for registered nurses. The module is designed to provide a safe and controlled environment for nurses to practice their skills and knowledge in a virtual setting.

Project Timeline

The project timeline includes the development of a virtual reality training module for registered nurses. The module is designed to provide a safe and controlled environment for nurses to practice their skills and knowledge in a virtual setting.



Supplement

CHAPTER 9

LICENSE AGREEMENTS

What is a license?

A license is permission granted by the owner of intellectual property that allows another party to act under all or some of the owner's rights, usually under a written license agreement.

What is a license agreement?

License agreements describe the rights and responsibilities related to the use and exploitation of intellectual property. UC license agreements usually stipulate that the licensee must diligently seek to bring the UC intellectual property into commercial use for the public good. The agreement also seeks to provide a reasonable return to UC.

How is a business chosen to be a licensee?

A licensee is chosen based on its ability to commercialize the technology for the benefit of the general public. Sometimes an established business with experience in similar technologies and markets is the best choice. In other cases, the focus and intensity of a start-up company is a better option.

What can I expect to gain if my IP is licensed?

Per UC policy, a share of any financial return from a license is provided to the inventor(s). In addition, inventors enjoy the satisfaction of knowing their inventions are being deployed for the benefit of the general public. New and enhanced relationships with businesses are another outcome that can augment one's teaching, research, and consulting.



What is the relationship between an inventor and a licensee, and how much of my time will it require?

Most licensees need some active assistance by the inventor to facilitate their commercialization efforts. This can range from infrequent, informal contacts to a more formal consulting relationship. Working with a new business start-up can require substantially more time, depending on your role in or with the company and your continuing role within UC. Your participation with a start-up is governed by UC conflict of interest policies.

What other types of agreements and considerations apply to tech transfer?

- Non-Disclosure Agreements (NDAs) are often used to protect the confidentiality of an invention during evaluation by potential licensees. NDAs also protect proprietary information of third parties that UC researchers need to review in order to conduct research or evaluate research opportunities. The Office of Innovation enters into NDAs for UC proprietary information shared with someone outside of UC, and manages NDAs related to research contracts and potential research relationships along with the Office of Sponsored Research Services.
- Material Transfer Agreements (MTAs), used for incoming and outgoing materials at UC, are administered by the Office of Innovation. These agreements describe the terms under which UC researchers and outside researchers may share materials, typically for research or evaluation purposes. Intellectual property rights can be endangered if materials are used without a proper MTA.
- Inter-Institutional Agreements describe the terms under which two or more institutions (e.g., two universities) will collaborate to assess, protect, market, license, and share in the revenues received from licensing jointly-owned intellectual property.
- Option Agreements, or Option Clauses within research agreements, describe the conditions under which UC preserves the opportunity for a third party to negotiate a license for intellectual property. Option clauses are often provided in a Sponsored Research Agreement to corporate research sponsors at UC; option agreements are entered into with potential licensees wishing to evaluate the technology prior to entering into a full license agreement.
- Research Agreements describe the terms under which sponsors provide research support to UC. These are negotiated by the Office of Sponsored Research Services along with the Office of Innovation.



CHAPTER 10

CONSIDERATIONS FOR A START-UP COMPANY

What is a start-up and why choose to create one?

A start-up is a new business entity formed to commercialize one or more related intellectual properties. Forming a start-up business is an alternative to licensing the IP to an established business. The Office of Innovation can help evaluate a few key factors when considering a start-up company:

- Development risk (often large companies in established industries are unwilling to take the risk for unproven technology)
- Development costs versus investment return (Can the investors in the start-up obtain their needed rates of return?)
- Potential for multiple products or services from the same technology (few companies survive on one product alone)
- Competitive advantage and target market
- Sufficient enough revenues to sustain and grow a company

Who decides whether to form a start-up?

The choice to establish a new company for commercializing intellectual property is made by the inventors in consultation with the Office of Innovation. The OOI can also assist in assessing other resources at UC for start-ups, such as the Venture Lab accelerator program, Entrepreneurs-in-Residence seeking to assist in the founding of companies, and the prototyping facility in The Ground Floor Makerspace.



CHAPTER 11

NAVIGATING CONFLICT of INTEREST

How does the University define a conflict of interest?

A conflict of interest can occur when the opportunity for an individual to benefit arises from the outcome of his/her research/scholarship or from the legitimate activities conducted in the course of his/her responsibilities as a member of the institution.

What is the University policy on employees holding financial interest in companies that commercialize university inventions?

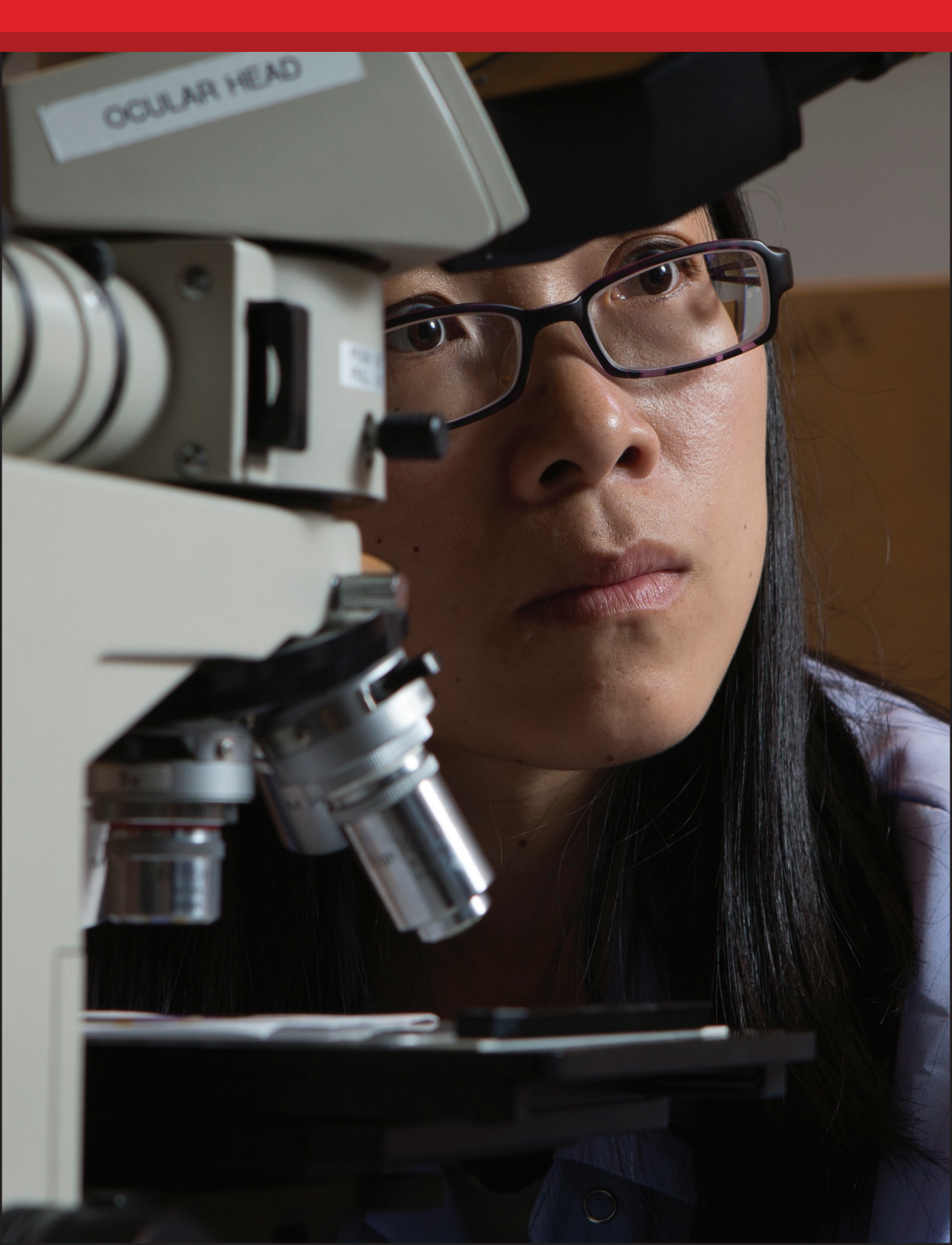
Employees who create new technology may hold personal financial interests in companies that are engaged in commercializing their inventions. Employee participation with outside companies in technology development facilitates the university's goal of making its research available for use in the private marketplace. The opportunity to participate in commercialization activities is also essential to the university's efforts to attract and retain highly qualified researchers.

What should I do if I have a conflict of interest?

A University employee must disclose the proposed financial interest and create a conflict management plan to perform outside activity with companies engaged in commercializing the new discoveries. Contact the Office for Ethics in Industry Engagement: <https://research.uc.edu/support/offices/oeie>

How are conflicts of interest issues resolved and approved?

Typically they are resolved by the creation of a conflict management plan, which has been reviewed and approved by the inventor's department head, Dean, the conflict of interest committee, and the Vice President for Research.



CHAPTER 12

REVENUE DISTRIBUTIONS



How are license revenues distributed?

The Office of Innovation is responsible for managing the expenses and revenues associated with technology agreements. Per UC Policy, revenues from license fees, royalties and equity (minus any unreimbursed patenting expenses) are shared with the inventors. For purposes of revenue distribution, “inventors” are defined as named inventors on patents or authors of copyrighted materials.

How are inventor revenues distributed if there are multiple inventors and/or multiple inventions in a license?

For multiple inventors, the “inventors’ share” of royalties is divided equally among all inventors unless all inventors agree in writing to another distribution formula of their collective choice.

For multiple inventions, unless the funds are clearly a result of a specific invention, each invention is apportioned an equal share, unless all inventors on each invention agree in writing to another distribution formula of their collective choice.



REINVESTMENTS and RELATIONSHIPS



Every year, the Office of Innovation, working with our UC inventors and licensees, receives hundreds of invention disclosures, negotiates multiple new option and license agreements, and assists in forming start-up companies to commercialize new ideas. The revenues received are shared with inventors and among UC departments, colleges, and the UC Office of Innovation. Revenues going to UC entities are reinvested in additional research and education, thus fostering the creation of the next generation of research, researchers, and entrepreneurs. Our new technology transferred to industry enhances industrial competitiveness, brings new products and therapies to the public, and further creates economic development and new jobs through our start-up companies.

In addition, the creation and deepening of company relationships through these activities support additional research projects, broader educational opportunities and collaborative investments, providing an enhanced ability to create, retain, and share valuable resources that contribute to our mission of leading urban public universities into a new era of innovation and impact.

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**5150 Edwards Center 1
45 Corry Blvd
Cincinnati, OH 45221 or by telephone at 513-556-5503
or by email to oeohelp@uc.edu.**

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Inquiries regarding the accessibility of University programs or activities, including electronic and information technology accessibility, physical and structural accessibility, and accessibility accommodations should be directed to:

**Executive Director of Accessibility/ADA/504/EIT Coordinator
630 Steger Student Life Center
2801 UC Main Street, Cincinnati, OH 45221 or by telephone at 513-556-9791
or by email to heidi.pettyjohn@uc.edu.**

For more information see: <https://www.uc.edu/about/non-discrimination.html>.

contact

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