

STANFORD

UNIVERSITY

OFFICE OF

TECHNOLOGY

LICENSING

# Inventor's Guide



## CONTENTS

|   |    |
|---|----|
| OVERVIEW .....                                    | 2  |
| THE TECHNOLOGY TRANSFER PROCESS AT A GLANCE ..... | 7  |
| OWNERSHIP OF INTELLECTUAL PROPERTY .....          | 10 |
| RESEARCH CONSIDERATIONS .....                     | 13 |
| INVENTION AND TECHNOLOGY DISCLOSURES .....        | 16 |
| PATENTS .....                                     | 20 |
| OTHER INTELLECTUAL PROPERTY .....                 | 28 |
| MARKETING AN INVENTION .....                      | 30 |
| START-UP COMPANIES .....                          | 32 |
| NAVIGATING CONFLICT-OF-INTEREST .....             | 35 |
| LICENSE AGREEMENTS .....                          | 37 |
| COMMERCIALIZATION .....                           | 40 |
| ROYALTY DISTRIBUTIONS .....                       | 42 |
| CYCLE OF INNOVATION.....                          | 44 |

**A**t the Stanford University Office of Technology Licensing (OTL), our mission is to promote the transfer of Stanford technology for society’s use and benefit while generating unrestricted income to support research and education.

At OTL, we help facilitate the formal transfer of technology to industry through license agreements. Our goal is to plant seeds today that may grow into useful products tomorrow.

The first few pages of “The Inventor’s Guide to Technology Transfer” are designed to provide a broad overview of the technology transfer process and services available for researchers. More details are provided in later sections of the guide. The most comprehensive source of information is available at our website: <http://otl.stanford.edu>.

Note: This booklet was revised and updated in May 2012. It is based on the University of Michigan’s “Inventor’s Guide to Technology Transfer,” with adaptations for Stanford and Stanford University Office of Technology Licensing. We are very grateful to Ken Nisbet, Executive Director, and the staff of UM Tech Transfer, for their permission to use these materials.

# Overview

## WHAT IS TECHNOLOGY TRANSFER?

**T**echnology transfer is the movement of knowledge and discoveries from the University to benefit the general public. It occurs in many ways: through research publications, exchanges at scientific conferences, and informal and formal relationships with industry. Most importantly, technology transfer occurs via educated students entering the workforce. For the purposes of this guide, however, technology transfer (commonly known as “tech transfer”) refers to the formal licensing of technology and intellectual property to third parties.

## WHAT IS INTELLECTUAL PROPERTY?

Intellectual property (also known as “intangible property”) is different from “tangible property” such as land, a building, a computer, etc. Intellectual property may be protected under the patent, trademark, trade secret, and/or copyright laws.

## HOW IS TECHNOLOGY TRANSFERRED THROUGH OTL?

Technology is typically transferred through a license agreement in which the University (commonly known as the “licensor”) grants its rights in the defined technology to a third party (commonly known as a “licensee”) for a period of years, sometimes for a particular field of use, and sometimes limited to certain regions of the world.

## WHAT IS THE OFFICE OF TECHNOLOGY LICENSING’S ROLE IN TECHNOLOGY TRANSFER?

In brief, the Office of Technology Licensing (OTL) licenses intellectual and tangible property to industry.

Specifically, OTL tries to find the best companies to develop and commercialize inventions. We:

- evaluate promising technologies generated by Stanford faculty, staff, and students
- market them to industry with the hope of finding one or more companies interested in developing products based on the technology
- negotiate license agreements with the interested companies (i.e., licensees)
- maintain long-term relationships with the companies developing products based on the licensed technology.

Within OTL, the Industrial Contracts Office (ICO) negotiates industry-sponsored research agreements, material transfer agreements, collaborations, and other research agreements with a significant intellectual property component.

A license grant may be non-exclusive, which gives any qualified company the right to develop products based on the technology, or exclusive if a technology requires significant investment of resources before commercialization is possible. The licensee may be an established company or a new business start-up.

Licenses include terms that require the licensee to meet certain performance requirements (also known as diligence requirements) and to pay royalties to the University. These royalties are shared with the inventors,<sup>1</sup> the inventors’ schools, and the inventors’ departments to provide support for further research and education.

<sup>1</sup> 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.

## WHAT IS MY ROLE?

- **Tell OTL about the invention.** Complete and submit the Invention and Technology Disclosure form on-line ([http://otl.stanford.edu/inventors/inventors\\_disclosure.html](http://otl.stanford.edu/inventors/inventors_disclosure.html)). In order to preserve potential patent rights, we strongly encourage you to disclose your invention *before* publicly describing your invention in a presentation, lecture, poster, abstract, website description, research proposal, dissertation/master's thesis, publication, or other public presentation of the technology. It is also very important that laboratory notebooks are well maintained in order to document the conception and reduction to practice of an invention. Additional suggestions for keeping laboratory notebooks can be found at [http://otl.stanford.edu/inventors/resources/inventors\\_labnotebooks.html](http://otl.stanford.edu/inventors/resources/inventors_labnotebooks.html).
- **Help OTL prepare marketing materials and identify potential licensees.** On the Invention and Technology Disclosure Form, include companies and contacts you believe might be interested in your intellectual property (IP) 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. We will also ask for your input when creating non-confidential marketing materials to share with potential licensees. In addition, we rely on inventors to help respond to technical questions from interested companies.
- **Respond to OTL and outside patent counsel requests.** If we decide to pursue patent protection for the invention then you will need to review the patent application for completeness and accuracy prior to filing the application. The patent counsel will also need your input when responding to the Patent Office as the prosecution progresses.
- **Keep OTL informed.** Please let us know about significant technology developments, upcoming publications and interactions with companies related to your invention.

## HOW LONG DOES THE TECH TRANSFER PROCESS TAKE?

The process of protecting the technology and finding the right licensing partner may take months – or even years – to complete, if ever. The amount of time depends 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 the marketplace, and the resources of the licensee. Because university technologies are often too early stage to attract industry investment, we are not able to find licensees for all technologies.

## HOW CAN I PUBLISH THE RESULTS OF MY RESEARCH AND STILL PROTECT THE COMMERCIAL VALUE OF MY INTELLECTUAL PROPERTY?

Since patent rights are affected by publication, we strongly encourage you to submit an Invention and Technology Disclosure ([http://otl.stanford.edu/inventors/inventors\\_disclosure.html?headerbar=1](http://otl.stanford.edu/inventors/inventors_disclosure.html?headerbar=1)) well before any public communication or disclosure of the invention. Once publicly disclosed (published or presented in some form), an invention may have restricted or minimal potential for patent protection in countries with a “first to file”<sup>2</sup> patent system. The U.S. now has a “first inventor to file” system. While this system does preserve a nominal one-year grace period for an inventor to file a patent application after making a public disclosure, OTL feels that it makes sense to proceed as if the U.S. had transitioned to a true “first to file” system.

When you submit an Invention and Technology Disclosure, you should inform OTL of any imminent or prior presentation, lecture, poster, abstract, website description, research proposal submission, dissertation/master's thesis, publication, or other public presentation of the invention.

<sup>2</sup> Most countries outside of the United States have a “first to file” patent system. In a “first to file” or “first inventor to file” patent system, if two people separately apply for patents on the same invention, the patent will be granted to the inventor who filed a patent application first. In a true “first to file” system a public disclosure prior to the filing date can be used to argue that an invention is not new or novel and therefore unpatentable. In a “first inventor to file” system, there are exceptions for public disclosures made by the inventor.



## 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 royalties with the inventors.

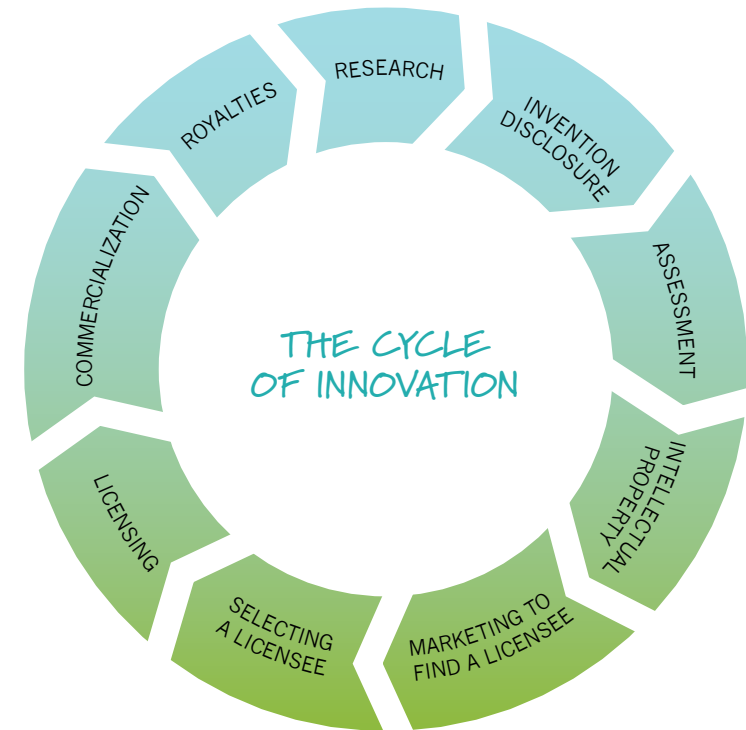
## HOW CAN I FIND OUT THE STATUS OF MY INVENTION?

You can check the Researcher Portal online (<http://otlportal.stanford.edu>). At the Researcher Portal you can learn the status of your inventions, including patents, licenses and marketing efforts. This site also allows inventors to update their contact information.

| Status | Title                    | Status | Agent    | Current Agreement | Cumulative Royalties |
|--------|--------------------------|--------|----------|-------------------|----------------------|
| Patent | Method and System for... | Patent | Stanford | Patent            | \$0.00               |
| Patent | Method and System for... | Patent | Stanford | Patent            | \$0.00               |
| Patent | Method and System for... | Patent | Stanford | Patent            | \$0.00               |
| Patent | Method and System for... | Patent | Stanford | Patent            | \$0.00               |
| Patent | Method and System for... | Patent | Stanford | Patent            | \$0.00               |

# The Technology Transfer Process At A Glance

The technology transfer process at Stanford can be conceptualized as a continuous cycle in which licensed products in the marketplace help fund future research and innovation. This chapter gives an overview of each phase in the cycle. As the following chapters explain each phase in more detail, refer to the footer on the bottom of each page to follow the process.



## 1. RESEARCH

Observations and experiments during research activities often lead to discoveries and inventions. An invention is any useful process, machine, composition of matter (e.g., a chemical or biological compound), or any new or useful improvement of the same. Often, multiple researchers – including trainees and research staff – may have contributed to an invention and may be inventors.

## 2. INVENTION AND TECHNOLOGY DISCLOSURE

This written notice of invention to OTL begins the formal technology transfer process. The Invention and Technology Disclosure (also known as an invention disclosure) is a confidential document, and should fully describe the new aspects of your invention, including the critical solution it provides and its advantages and benefits over current technologies.

## 3. ASSESSMENT

We will review the invention disclosure, conduct patent searches (if applicable), and analyze the market and competitive technologies to assess the invention's commercialization potential. The assessment process will guide our licensing strategy – for example, to license exclusively or non-exclusively, or to license the invention in different fields of use.

## 4. INTELLECTUAL PROPERTY PROTECTION

(if appropriate, necessary, or warranted)

Patent protection, a common legal protection method, begins with the filing of a patent application with the U.S. Patent and Trademark Office and, when appropriate, foreign patent offices. Then it will require several years and tens of thousands of dollars to obtain an issued patent (with no guarantee of success). Other commonly used forms of intellectual property protection include copyright and trademark. Unique biological materials and software can often be successfully licensed without formal intellectual property protection.

## 5. MARKETING

Stanford is committed to broadly marketing all technologies to appropriate companies that could be interested in commercializing the particular

invention. With your input, we will create a marketing overview of the technology, and identify and contact candidate companies (potential licensees) that have the expertise, resources, and business networks to bring the technology to market.

## 6. SELECTING THE BEST LICENSEE(S)

If there are several parties interested in a license, we will endeavor to license non-exclusively or grant field-of-use licenses, if possible. If it is not possible to accommodate all interested parties, we will license the company most committed and able to bring the technology to the marketplace. Typically, there is only one interested party or none at all.

## 7. LICENSING

OTL negotiates and executes a license agreement. This agreement is a contract between the University and a company in which certain University rights to a technology are granted to a company in return for financial and other benefits. An option agreement is sometimes used to allow a company to evaluate the technology for a limited time before a formal license agreement is concluded.

## 8. COMMERCIALIZATION

Most university inventions are very early stage and require further research and development efforts. The licensee company typically makes significant business investments of time and funding to commercialize the product or service. This step may entail regulatory approvals, sales and marketing, support, training, and other activities.

## 9. ROYALTIES

Royalties received by the University from licensees are distributed according to policy to inventors, departments, and schools to fund additional research and education. Royalties include both cash and equity received from licensees in consideration for granting the license.

## 10. REINVEST

Royalties shared throughout the University collectively foster the creation of the next generation of research and innovators.



# Ownership of Intellectual Property

## WHO OWNS WHAT I CREATE?

Ownership depends on the creators' responsibilities to Stanford and their use of University facilities. Considerations include:

- What were the creators' responsibilities to Stanford?
- Were University resources used in creating the intellectual property?
- What are the terms of any agreement related to the creation of the intellectual property?

As a general rule, all potentially patentable inventions conceived or first reduced to practice in whole or in part by Stanford's community in the course of their University responsibilities or with more than incidental use of University resources are owned by the University regardless of the source of funding, if any.

Stanford's full policy on ownership of intellectual property is stated in the Research Policy Handbook (RPH), including provisions for inventions, copyright, tangible research property and trademarks. In some cases, the terms of a Sponsored Research Agreement or Materials Transfer Agreement may impact ownership. When in doubt, please call OTL for advice.

## WHO OWNS RIGHTS TO DISCOVERIES MADE WHILE I AM CONSULTING?

Since the University does not ordinarily review consulting arrangements, you should be clear about the delineation between University work and private consulting. Stanford inventors cannot enter into any agreement that creates copyright or patent obligations that conflict with their SU-18 agreement to assign their rights to Stanford.

Stanford will ordinarily presume that intellectual property developed 1) while a faculty is consulting at the company and 2) on an on-going company program, (e.g., drug development, medical device, chip development, software issue, or any other specific company research or design activity) belongs to the company as long as there has not been more than incidental use of Stanford resources. Stanford resources are considered to include facilities, equipment, the time and expertise of students and post-doctoral fellows and research staff, but do not include use of personal computers, telephones, or libraries.

When a faculty member is consulting for a start-up company with which he or she has another financial relationship, it is particularly important to make certain that the separation between the faculty member's academic program, including research and teaching activities, is clear to all parties. These policies apply during sabbatical leave. Additional information on requirements for faculty consulting activities and agreements can be found at <http://doresearch.stanford.edu/policies/research-policy-handbook/conflicts-commitment-and-interest/consulting-and-other-outside>. When a question arises as to the appropriate delineation between a researcher's university responsibilities and a researcher's consulting obligation, the researcher should discuss the situation with his or her cognizant dean. If there is a question of IP ownership, the IP should be disclosed to the University and a determination of ownership rights will be made.

## WHO OWNS RIGHTS TO DISCOVERIES MADE WHILE ON SABBATICAL?

Generally, if you are on a sabbatical paid by the University, Stanford still retains rights to any discoveries connected to your scope of employment.

## SHOULD I LIST VISITING SCIENTISTS ON MY INVENTION AND TECHNOLOGY DISCLOSURE?

All contributors to the ideas leading to a discovery should be mentioned in your disclosure, even if they are not Stanford employees.

### CAN A STUDENT CONTRIBUTE TO AN INVENTION?

Yes, students are often inventors. The ownership of an invention solely developed by a student depends on 1) whether the invention was created by a student in a capacity as a University employee or 2) whether the invention was created using University resources. The University owns any intellectual property created by student employees in the course of their employment.

### WILL STANFORD SIGN A WAIVER OF RIGHTS LETTER WHEN I HAVE INVENTED SOMETHING THAT FALLS OUTSIDE THE STANFORD POLICY?

No. Inventors and creators are required to make a good faith determination of whether or not an invention or copyrighted work falls within the Stanford policy. Stanford is not in the position to make such a determination and relies on its inventors and creators to understand the policy. Therefore, Stanford will not confirm in writing whether or not an invention or copyrighted work falls outside the policy through a “waiver of rights” letter.

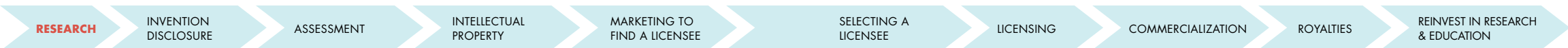
## Research Considerations

### MAY I USE MATERIAL FROM OTHERS IN MY RESEARCH?

Yes, if the other party is willing to share materials. It is important to document carefully from whom and under what conditions you obtained materials so that we can determine if your use may impact the ownership rights of a subsequent invention or technology. If you wish to obtain materials from outside sources, an incoming Material Transfer Agreement (MTA) may be required. However, Stanford has worked with our peer institutions to eliminate the use of MTAs whenever possible and to rely instead on the longstanding practice of publicly acknowledging colleagues for materials they have provided in papers and presentations. Contact the Industrial Contracts Office (ICO) for more information on incoming MTAs. To find which ICO representative is assigned to your department, visit: <http://www.stanford.edu/group/ICO/general/da.html> or phone (650) 723-0651.

### WHAT RIGHTS DOES A CORPORATE RESEARCH SPONSOR HAVE TO ANY DISCOVERIES ASSOCIATED WITH MY RESEARCH?

The Sponsored Research Agreement will usually contain provisions pertaining to intellectual property (IP). The University owns the patent rights and other intellectual property resulting from corporate sponsored research. Often, corporate sponsored research contracts provide the sponsor a limited time to negotiate a license for any patent or intellectual property rights developed under the specific scope of work that the sponsor funded. The sponsor generally will not have contractual rights to discoveries that are clearly outside of the scope of the research. Therefore, it is important to define the scope of work within a research agreement.



Corporate sponsored research agreements, collaborations, MTAs, etc. are handled by the Industrial Contracts Office, which works closely with OTL on intellectual property issues in these agreements. If you have questions about sponsored research, please contact the ICO representative for your department ([www.stanford.edu/group/ICO/](http://www.stanford.edu/group/ICO/)) or call (650) 723-0651.

### WHAT ABOUT CONSULTING?

Consulting agreements are considered to be personal agreements between a company and a researcher. Therefore, consulting arrangements generally are not negotiated by the University nor formally reviewed by OTL or ICO. Researchers who enter into consulting agreements should familiarize themselves with the policies of Stanford and their school relevant to consulting activities (<http://doresearch.stanford.edu/policies/research-policy-handbook/conflicts-commitment-and-interest/consulting-and-other-outside>).

The researcher is expected to ensure that the terms of the consulting arrangement are consistent with University policies, including those related to IP ownership and employment responsibilities. Stanford inventors cannot enter into any agreement that creates copyright or patent obligations that conflict with their obligation to assign their rights to Stanford. Please notify your OTL licensing specialist if you have or are contemplating a consulting agreement with a potential licensee, as this will require an ad hoc Conflict-of-Interest review (see page 36).

### WILL I BE ABLE TO SHARE MATERIAL, RESEARCH TOOLS, OR INTELLECTUAL PROPERTY WITH OTHERS TO FURTHER THEIR RESEARCH? Yes.

- For non-human, biological materials to be used for in vitro research by research colleagues: Stanford does not require or encourage the use of an MTA. If circumstances require an MTA, the Simple Letter Agreement (SLA) or the Uniform Biological Material Transfer Agreement (UBMTA) should be used without changes. The SLA and UBMTA forms are available on the Industrial Contracts Office (ICO) website ([www.stanford.edu/group/ICO/researcher/reMTA.html](http://www.stanford.edu/group/ICO/researcher/reMTA.html)). In the rare instance that modifications are appropriate, the revisions must be approved by ICO.
- For human tissue and human research: The transfer of human biologic material and specimens and materials for use in humans is governed by separate regulations. Please refer to <http://humansubjects.stanford.edu> and <http://www.stanford.edu/group/ICO/researcher/reMTA.html#hta1>.
- For materials funded by the California Institute for Regenerative Medicine (CIRM): There are special MTA requirements. Please contact the ICO for instructions (<http://www.stanford.edu/group/ICO/researcher/reMTA.html#CIRM>).
- For sharing materials with commercial collaborators: Additional terms and conditions for use of other materials may be used (but are not required). Please contact an ICO or OTL representative at (650) 723-0651 or [info@otlmail.stanford.edu](mailto:info@otlmail.stanford.edu) if you would like help deciding what kind of MTA to use.



# Invention and Technology Disclosures

## WHAT IS AN INVENTION AND TECHNOLOGY DISCLOSURE?

An Invention and Technology Disclosure (also commonly known as an Invention Disclosure) is a written description of your invention or development provided to OTL. The disclosure lists all sources of support and includes information necessary to begin pursuing protection and commercialization activities. In order to keep all options open for pursuing patent rights, it is very important to disclose inventions prior to publication. It is also critical that you note the date of any previous or upcoming publication or other public disclosure describing the invention.

To initiate the process, submit the disclosure on-line at <https://otldisclosure.stanford.edu/>. This document will be treated as “Stanford Confidential.” Shortly after you submit the disclosure, you will be contacted by the assigned licensing specialist to discuss the invention and its potential commercial applications.

## HOW DO I KNOW IF MY DISCOVERY IS AN INVENTION? SHOULD I SUBMIT AN INVENTION AND TECHNOLOGY DISCLOSURE?

You are encouraged to submit an Invention and Technology Disclosure for all inventions and developments that you feel may solve a significant problem and/or have significant value. If you are in doubt, we urge you to contact OTL to discuss your invention. We can also advise on alternatives to patenting and licensing.

## 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. These are sometimes referred to as Tangible Research Property (TRP). Research tools do not necessarily need to be protected by patents in order to be licensed to commercial third parties and to generate royalties for the laboratory. If you have research tools that you believe to be valuable or wish to provide to others (including research collaborators), we will work with you to develop the appropriate protection, licensing, and distribution strategy. The University’s TRP policy (<http://doresearch.stanford.edu/policies/research-policy-handbook/intellectual-property/tangible-research-property>) promotes the prompt and open exchange of tangible items produced in the course of Stanford research projects with scientific colleagues outside the investigator’s immediate laboratory.

## ARE THE RIGHTS TO AN INVENTION EVER ASSIGNED TO AN INVENTOR?

If Stanford does not take title (i.e., ownership) to an invention sponsored by the U.S. government, by law, title reverts to the government. The inventor can petition the government to obtain title. In some cases, if we decide not to pursue patent protection and/or choose not to actively market the invention, the inventor may pursue development of the invention while the University maintains ownership. In such cases, the inventor typically pays all patent costs. Your OTL licensing specialist can discuss alternatives based on the specific circumstances of a particular invention.

## HOW DOES OTL ASSESS INVENTION AND TECHNOLOGY DISCLOSURES?

Licensing specialists examine each invention disclosure to review the licensability of an invention. Factors in the evaluation include: the patentability of the invention; protectability and marketability of potential products or services; relationship to related intellectual property which may affect freedom to operate; size and growth potential of the relevant market; amount of time and money required for further development; pre-existing rights (also known as “background rights”) associated with the intellectual property; and potential competition from other products/technologies. We typically will consult with the inventors, patent attorneys, and industry contacts as part of this process.

### WHEN SHOULD I COMPLETE AN INVENTION AND TECHNOLOGY DISCLOSURE?

You should complete an Invention and Technology Disclosure whenever you feel you have discovered something unique with possible commercial value or when the terms of your sponsored research require disclosure of inventions. Ideally, this should be done well before presenting the discovery through publications, poster sessions, conferences, press releases, or other communications. Once the essence of an invention is publicly disclosed (i.e., published or presented in some written form to a non-Stanford audience), the potential patent rights may be limited. Be sure to inform OTL of any imminent or prior presentation, lecture, poster, abstract, website description, research proposal, dissertation/master’s thesis, publication, or other public presentation of the invention. Embargoing a thesis does not protect the technology from public disclosure.

## IF MY CONVICTION IS THAT ALL IP SHOULD BE LICENSED NON-EXCLUSIVELY TO ALL POTENTIAL USERS FOR THE PUBLIC GOOD, WILL THE UNIVERSITY HONOR MY REQUEST?

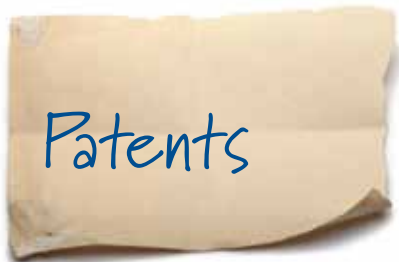
We will work with you to develop the appropriate commercialization strategy for the invention. Some technologies lend themselves to non-exclusive licensing (licensing to multiple third parties). Others will only reach the commercial marketplace, and therefore the public, if they are licensed on an exclusive basis. We will generally accommodate inventors’ wishes to license non-exclusively in the interest of effective technology transfer.

Alternatively, inventors may place their inventions in the public domain if they believe that would be in the best interest of technology transfer and if doing so is not in violation of the terms of any agreements that supported or related to the work.

## HOW DO WE DECIDE WHETHER TO COMMERCIALIZE SOFTWARE WITH A TRADITIONAL OR AN “OPEN SOURCE” LICENSE?

Creators of copyrighted software can put their works in the public domain as long as doing so does not conflict with Stanford’s contractual obligations and it is in the interest of technology transfer. “Open sourcing” is different from “public domaining”. In order to open source the code, you must be certain you have the right to do so. (All of the contributors must agree to open source the software which must not contain any third party code.) Additional information and considerations for open source software can be found at [http://otl.stanford.edu/inventors/resources/inventors\\_opensource.html](http://otl.stanford.edu/inventors/resources/inventors_opensource.html).





### WHAT IS A PATENT?

In the U.S., a patent gives the holder the right to exclude others from making, using, selling, offering to sell, and importing any patented invention. Thus, a patent does not necessarily provide the holder any affirmative right to practice a technology, since it may fall under a broader patent owned by others. Instead, it provides the right to exclude others from practicing it. Patent claims are the legal definition of an inventor's protectable invention. Additional information about patents, patent prosecution, and working with attorneys can be found at [http://otl.stanford.edu/inventors/inventors\\_patent.html](http://otl.stanford.edu/inventors/inventors_patent.html).

### WHAT CAN BE PATENTED?

Patentable subject matter includes processes, machines, compositions of matter, articles, some computer programs, methods (including methods of making compositions, methods of making articles, and even methods of performing business). Non-patentable subject matter includes theories, ideas, laws of nature, and scientific principles.

### WHAT IS THE UNITED STATES PATENT AND TRADEMARK OFFICE (PTO)?

The PTO is the federal agency, organized under the Department of Commerce, which administers the patent system 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 conceives of an essential element of the invention as described 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 generally an inventor. A person who contributed only labor and/or the supervision of routine techniques or does all the experiments with direction from another person, but who did not contribute to the concept of one of the embodiments of the claimed invention is not considered an inventor.

If a patent application is filed based on your invention disclosure, the patent practitioner will ask you about your contribution to the conception of the invention to determine the correct inventors on a particular patent application. More information about inventorship can be found in the "Who is an Inventor?" pamphlet on OTL's website ([http://otl.stanford.edu/documents/who\\_is\\_inv.pdf](http://otl.stanford.edu/documents/who_is_inv.pdf)).

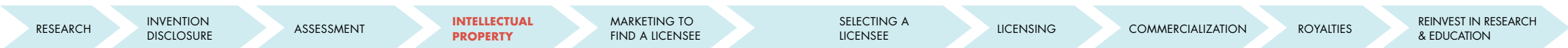
### WHO IS RESPONSIBLE FOR PATENTING?

In general, OTL uses outside firms for IP protection, thus assuring access to patent specialists in diverse technology areas. Inventors work with the patent practitioners in drafting the patent applications and responses to patent office prosecution transactions. OTL licensing specialists will select the patent practitioners and oversee the patent prosecution.

### WHAT IS THE PATENTING PROCESS?

There are two types of patent applications: provisional patent applications (which are less formal patent applications) and non-provisional patent applications (which are formal patent applications). Both are described below.

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 practitioner typically will ask the inventor to review an application before it is filed and will also ask questions about inventorship of the application claims. Additional information about filing patent applications can be found on OTL's website:

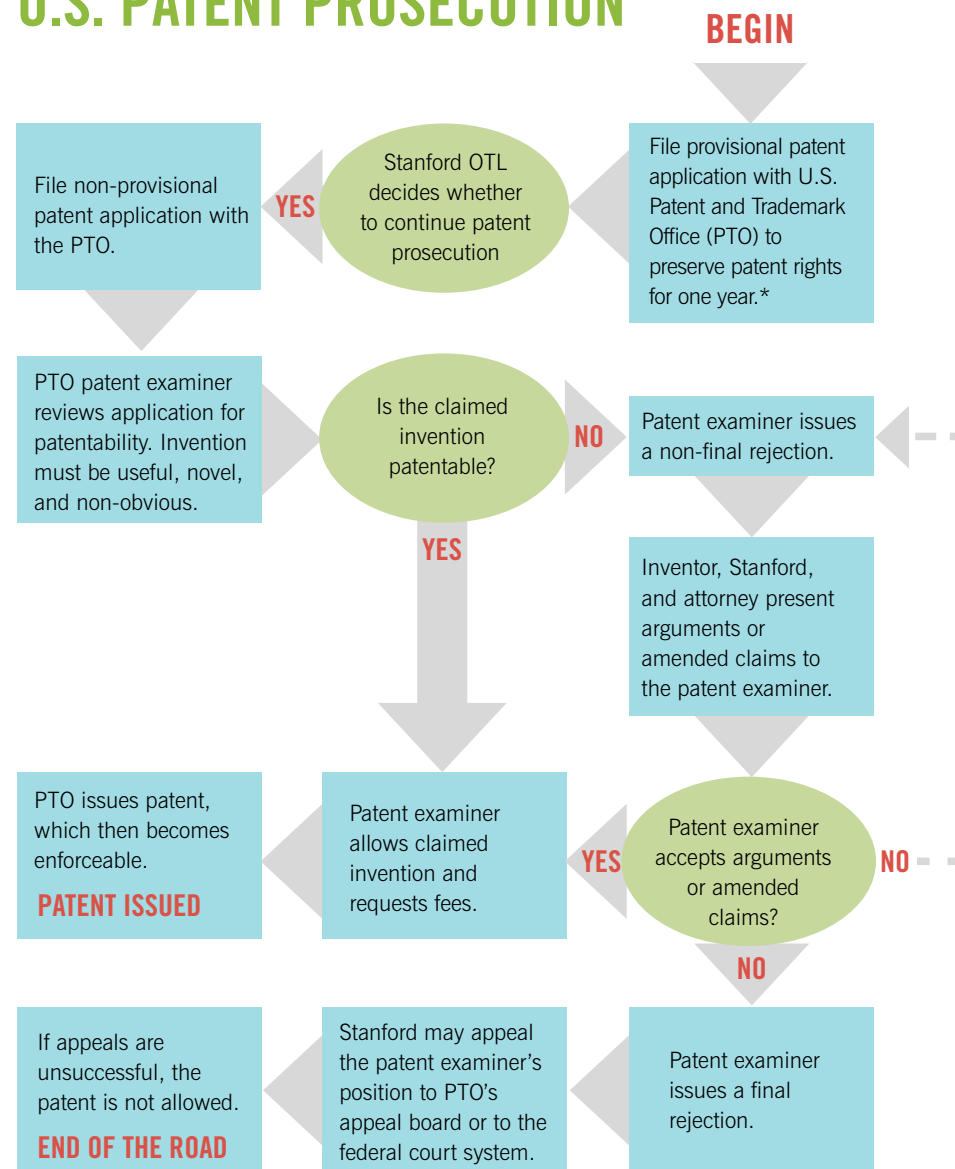
- working with patent practitioners – <http://otl.stanford.edu/documents/betterpatents.pdf>
- disclosure requirements – [http://otl.stanford.edu/inventors/inventors\\_discreqs.html](http://otl.stanford.edu/inventors/inventors_discreqs.html)
- guidelines for reviewing draft applications – [http://otl.stanford.edu/documents/fw\\_patapproveinstr.pdf](http://otl.stanford.edu/documents/fw_patapproveinstr.pdf)

At the time a non-provisional application is filed, the patent practitioner will ask the inventor(s) to sign an Inventor's Declaration (an oath stating that you are an inventor) and an Assignment, which evidences the inventor's duty to assign the patent to the University.

Depending on the technology, about two years or more after filing a non-provisional patent application, the patent practitioner will receive written notice from the PTO as to whether the application and its claims have been accepted in the form as filed. More often than not, the PTO rejects the application because questions need to be clarified or 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 or Official Action.

If the application is rejected, the patent practitioner must file a written response, usually within three to six months. Generally the practitioner 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 PTO Official Actions and two responses by the patent practitioner – and sometimes more – before the application is resolved. The resolution can take the form of a PTO notice that the application is allowable – in other words, the PTO agrees to issue a patent.

## ROAD MAP FOR TYPICAL U.S. PATENT PROSECUTION



\* The USPTO allows a grace period for patent application after public disclosure. However, OTL will generally proceed as if under the same regulations as for international patents – to preserve patent rights, patent filing must occur prior to any publication or public disclosure.

Adapted with permission from Harvard University Office of Technology Development.

During this process (called “patent prosecution”), input from the inventor(s) is often needed to confirm the patent practitioner’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, which is typically 18 months after the initial filing.

### IS THERE SUCH A THING AS A PROVISIONAL PATENT?

No. However, there is a provisional patent application, which is described below.

### WHAT IS THE DIFFERENCE BETWEEN A PROVISIONAL PATENT APPLICATION AND A REGULAR (OR “UTILITY” OR “NON-PROVISIONAL”) PATENT APPLICATION?

Often, U.S. provisional patent applications can provide a tool for preserving patent rights while temporarily reducing costs and providing time to assess the market opportunity for the invention and/or prepare a utility patent application. This occurs because the provisional application is not examined during the year in which it is pending and claims are not required. A regular non-provisional U.S. application and related foreign applications must be filed within one year of the provisional application in order to receive the benefit of its early filing date. However, only the material described and enabled in the provisional application can receive this benefit. As a result, the patent practitioner may need your assistance preparing the application even when it 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 orally or in writing the invention prior to filing a patent application in one country. In contrast, in the United States, the inventor has a nominal one-year grace period after written public disclosure during which a patent application may be filed, subject to certain requirements. (However, OTL feels it is strategically best to proceed in

most cases as if there were no U.S. grace period.)The costs for foreign patent protection are very high.

### 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.

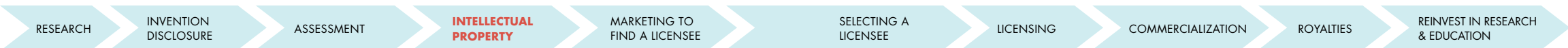
### WHAT IS GAINED BY FILING AN APPLICATION UNDER THE PATENT COOPERATION TREATY?

PCT provides two advantages. First, it delays the need to file costly foreign applications until 30 months after the initial filing date, giving an applicant 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.

An 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 a first country. However, pursuant to this treaty, these so-called “convention applications” must be 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 approximately three years, though inventors in the computer, networking



and communications fields should plan on a longer waiting period. Once a patent is issued, it is enforceable for 20 years from the initial filing date of the application that resulted in the patent, assuming that PTO-mandated maintenance fees are paid.

### WHY DOES STANFORD PROTECT SOME INTELLECTUAL PROPERTY THROUGH PATENTING?

Patent protection is often a requirement of a potential commercialization partner (licensee) because it can protect the often sizable investment required to bring the technology to market. Due to their expense, patent applications are not possible for all Stanford 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 sometimes precedes finding a licensee, we look for creative and cost-effective ways to seek early protections for as many promising inventions as possible.

### WHO DECIDES WHAT GETS PROTECTED?

OTL and the inventor(s) together discuss relevant factors in deciding whether to file a patent application. Ultimately, OTL makes the final decision as to whether to file a patent application or seek another form of protection.

### WHAT DOES IT COST TO FILE FOR AND OBTAIN A PATENT?

Filing a non-provisional U.S. patent application may cost between \$10,000 and \$15,000, and sometimes more. To obtain an issued patent may require an additional \$10,000 to \$20,000 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?

Typically, the technology will be jointly owned and each inventor assigns the invention to his or her employer. The licensing specialist will work with other organizations under “inter-institutional” agreements that provide 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 royalties.

### WILL THE UNIVERSITY INITIATE OR CONTINUE PATENTING ACTIVITY WITHOUT AN IDENTIFIED LICENSEE?

Often the University accepts the risk of filing a patent application before a licensee has been identified. After University rights have been licensed to an exclusive licensee, the licensee generally assumes the patenting expenses. At times we must decline further patent prosecution after a reasonable period (often a year or two) of attempting to identify a licensee. Additional information about OTL’s patent approach when there is no licensee can be found at [http://otl.stanford.edu/inventors/resources/inventors\\_patapp.html](http://otl.stanford.edu/inventors/resources/inventors_patapp.html).

### WHERE CAN I FIND MORE INFORMATION ABOUT THE PATENT PROCESS?

Additional information about patents, patent prosecution, and working with patent practitioners can be found at [http://otl.stanford.edu/inventors/inventors\\_patent.html](http://otl.stanford.edu/inventors/inventors_patent.html).



# Other Intellectual Property

## WHAT IS A COPYRIGHT AND HOW IS IT USEFUL?

Copyright is a form of protection provided by the laws of the United States 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 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, the University registers copyrights, but generally not until a commercial product is ready for manufacture.

## HOW DO I REPRESENT A PROPER UNIVERSITY COPYRIGHT NOTICE?

Although copyrightable works do not require a copyright notice, we do recommend that you use one. For works owned by the University, use the following notice:

“© 20XX The Board of Trustees of The Leland Stanford Junior University”

## HOW CAN I LEARN MORE ABOUT UNIVERSITY COPYRIGHT POLICIES?

We recommend that you begin by reviewing material at [http://otl.stanford.edu/inventors/inventors\\_copyright.html](http://otl.stanford.edu/inventors/inventors_copyright.html).

If you have additional questions, please contact OTL.

## HOW CAN I LEARN ABOUT SOFTWARE?

You will find information about software at

[http://otl.stanford.edu/inventors/inventors\\_software.html](http://otl.stanford.edu/inventors/inventors_software.html).

## 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 (PTO) 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.

For information on Stanford's Trademark Licensing Program, please contact the director of business development at [trademark@stanford.edu](mailto:trademark@stanford.edu), or call (650) 723-3331.

## WHAT IS THE POLICY ON TRADE SECRETS?

The University generally does not keep trade secrets because research results are routinely disclosed to others and published widely. However, tangible research property (e.g., biological material) can be licensed as “know-how,” which falls into the trade secret category of intellectual property.

# Marketing an Invention

## WHY DOES OTL MARKET MY INVENTIONS?

We are committed to finding the best licensee for the technology – a company that will dedicate resources (time, money, and people) to developing the technology. In addition, because inventors are often affiliated with a potential licensee, either as a consultant, stockholder, board member, founder, or otherwise, we must be particularly conscious of conflict-of-interest issues. For a more detailed discussion about why OTL markets, see [http://otl.stanford.edu/inventors/resources/inventors\\_pci.html](http://otl.stanford.edu/inventors/resources/inventors_pci.html).

## HOW CAN I ASSIST IN MARKETING MY INVENTION?

Your active involvement and enthusiasm can dramatically improve the chances of matching an invention to an outside company. Your research and consulting relationships are often helpful in identifying both potential licensee companies and technology champions within those organizations.

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 tech transfer results are obtained when the inventor and the licensing professional work together as a team to market and promote the technology.

## HOW DOES OTL MARKET MY INVENTIONS?

Licensing specialists use many sources and strategies to identify potential licensees and market inventions. Sometimes existing relationships of the inventors, the OTL staff, and other researchers are useful in marketing an invention. Market research can also assist in identifying prospective licensees.

In addition, we examine other comparable technologies and agreements to assist our efforts. We use our website to market inventions, we attend conferences and industry events, and we make direct contacts with companies. Inventor publications and presentations are often excellent marketing tools as well.

## HOW ARE MOST LICENSEES FOUND?

A review of licensing agreements revealed that 70% of licensees were known to the inventors. Thus, research and consulting relationships are often valuable sources for identifying licensees. Licensees are also identified through existing relationships of the OTL staff. We attempt to broaden these relationships through personal networking, contacts obtained from website posting 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 intensity of the market. It is often challenging to attract a licensee because most Stanford inventions tend to be in the early stage of the development cycle and require substantial investment to commercialize them.



# Start-Up Companies

## WHAT IS A START-UP?

A start-up is a new business entity formed by entrepreneurs to commercialize one or more related intellectual properties.

## WILL OTL LICENSE A START-UP?

Before a license can be granted to a start-up, the invention is marketed to other potential licensees who may have an interest in commercializing it. This process normally will take at least three months to complete, and fulfills our responsibility to identify the best company or companies for commercialization. From a technology transfer perspective, the start-up company with an entrepreneur committed to developing a particular technology may be the best licensee, but the start-up company must offer a viable plan to commercialize an invention in order to receive a license. If a new business start-up is the best choice for commercializing the technology, we will negotiate with a representative of the company to grant a license to the new company. If the start-up has Stanford personnel associated with it, the company representative should not be a Stanford employee, in order to mitigate against conflicts of interest.

## WHAT ROLE DOES AN INVENTOR USUALLY PLAY IN A COMPANY?

Stanford inventors often serve as technology consultants, advisors, or in some other technical developmental capacity. In many cases, the start-up investors and management team identify the best role for an inventor, based on the inventor's expertise and interests. As the company matures, and additional investment is required, the inventor's role may change. Faculty involvement with a licensee (start-up or established company) will generally require a Conflict-of-Interest review before a license can be approved. For students, the university strongly prefers that the license be granted after graduation. Student involvement with any outside entity (start-up or existing

## WHO DECIDES WHETHER TO FORM A START-UP?

An entrepreneur must decide to form a start-up. The entrepreneur can be from within or outside Stanford.

An entrepreneur should consider a few key factors when thinking about becoming involved in a start-up company:

- Development risk – often large companies in established industries are unwilling to take the risk on an unproven technology
- Development costs versus investment return – because of the high risk of start-up companies, investors will consider the potential to obtain many multiples of return before committing funds to a new company
- Platform technology – few companies survive on one product alone; technologies that can be commercialized for multiple products or services are more likely to enable successful start-up companies
- Competitive advantage and target market – these must be sufficiently large for the start-up to succeed
- Potential revenues – this must be sufficient to grow and sustain a company



company) is governed by Stanford policy (<http://doresearch.stanford.edu/policies/research-policy-handbook/non-faculty-research-appointments/relationships-between-students>).

It is also wise for inventors to have agreements regarding their roles with a start-up reviewed by their own counsel to ensure that all personal ramifications – including taxation and liabilities – are clearly understood.

### HOW MUCH OF MY TIME AND EFFORT WILL IT TAKE?

Starting a company requires a considerable amount of time and effort. Until the start-up team is identified and engaged, the entrepreneur will need to champion the formation effort. After the team is in place, you may be asked to be involved in investor discussions, help the company put together a research group, or help with business strategy, etc.


### DOES THE UNIVERSITY TAKE EQUITY IN START-UPS?

Stanford can accept equity as part of the financial terms of the license. License agreements to start-ups frequently include equity as a substitute for some of the cash consideration because new companies often prefer to conserve their cash. When the University takes equity it also shares some of the risk associated with the start-ups. A decision to include equity in a license must make sense for both the University and the company.

### WHERE CAN I FIND OUT MORE INFORMATION ABOUT START-UPS?

OTL's website has a start up guide (<http://otl.stanford.edu/documents/OTLstartupguide.pdf>) and information about:

- Obtaining a license for a start-up company:  
[http://otl.stanford.edu/about/resources/about\\_res\\_startups.html](http://otl.stanford.edu/about/resources/about_res_startups.html)
- Conflict-of-interest issues considered when licensing inventor-associated companies:  
[http://otl.stanford.edu/inventors/resources/inventors\\_pci.html](http://otl.stanford.edu/inventors/resources/inventors_pci.html)
- Licensing faculty-associated companies:  
[http://otl.stanford.edu/industry/industry\\_policies.html?2#license](http://otl.stanford.edu/industry/industry_policies.html?2#license)
- Entrepreneurial Resources:  
[http://otl.stanford.edu/inventors/resources/inventors\\_addinfo.html?#ent](http://otl.stanford.edu/inventors/resources/inventors_addinfo.html?#ent)



## Navigating Conflict-of-Interest

### HOW DOES THE UNIVERSITY DEFINE A CONFLICT-OF-INTEREST?

A conflict-of-interest (COI) occurs when there is a divergence between an individual's private interests and his or her professional obligations to the University such that an independent observer might reasonably question whether the individual's professional actions or decisions are determined by considerations of personal gain, financial or otherwise. A conflict-of-interest depends on the situation, and not on the character or actions of the individual. An overview of Stanford's COI policies and guidelines for managing COI are available at <https://doresearch.stanford.edu/research-scholarship/conflicts-interest>.

### WHAT KINDS OF ISSUES CONCERN CONFLICT-OF-INTEREST REVIEWERS?

Typically, reviewers are concerned with whether or not a researcher/faculty member can separate University research from company research; provide unbiased and appropriate guidance and support to students; maintain academic integrity in research and education; and, adhere to government mandated policies.

### WHAT ARE EXAMPLES OF A CONFLICT OF COMMITMENT?

Conflicts of commitment usually involve issues of time allocation. Whenever an individual's outside consulting activities (as defined in Stanford's Policy on Outside Consulting) exceed the permitted limits (normally thirteen days per quarter for faculty), or whenever a full-time faculty member's primary professional loyalty is not to Stanford, a conflict of commitment exists. The best approach is to fully disclose your situation to the appropriate person (e.g., your faculty advisor or school dean) and discuss the implications for your University responsibilities.

## HOW DOES THE UNIVERSITY MANAGE CONFLICT?

“Ad hoc” disclosures are called for whenever a current or prospective relationship creates the potential for COI (e.g. when there are additional financial relationships proposed between a faculty member and a prospective licensee or research sponsor). Researchers and faculty members are responsible for documenting and disclosing any outside arrangements that constitute situations or interests requiring review as described in University conflict-of-interest policies. These disclosures are reviewed by the dean or associate dean of the inventor’s school and the Dean of Research to determine if there is an appropriate management plan for the COI. The Stanford DoResearch website (<https://doresearch.stanford.edu/research-scholarship/conflicts-interest>) has more information on COI policies, procedures, and the appropriate contacts for each school. OTL and ICO will not be able to conclude any agreements until the appropriate COI reviews and approvals have been completed.

# License Agreements

## WHAT IS A LICENSE?

A license is a 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 developed at the University. Stanford license agreements usually stipulate that the licensee should diligently act to bring the intellectual property into commercial use for the public good and provide a reasonable return to the University.

## HOW IS A COMPANY 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. Typically, a university does not have multiple potential licensees bidding on an invention.

## WHEN SHOULD I SEEK GUIDANCE ON CONFLICT-OF-INTEREST?

Whenever a question or uncertainty arises, you should seek guidance from your school dean or your OTL licensing specialist for license-related issues and/or your ICO contact for research-related issues. There are two times in particular when conflict-of-interest disclosures are required: when research proposals are submitted to external sponsors in which you have a financial interest and when a license or option is being considered for a company in which you have additional financial relationships (e.g. equity, sponsored research, consulting). You are encouraged to review the conflict-of-interest policies relevant to your situation.

## WHAT CAN I EXPECT TO GAIN IF MY INVENTION IS LICENSED?

According to University policy, a share of net income from a license is provided to the inventor(s) (see [http://otl.stanford.edu/inventors/inventors\\_process.html](http://otl.stanford.edu/inventors/inventors_process.html)). Most 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 a faculty member's teaching, research, and consulting.

## WHAT IS THE RELATIONSHIP BETWEEN AN INVENTOR AND A LICENSEE, AND HOW MUCH OF MY TIME WILL IT REQUIRE?

Many licensees will be more successful in their commercialization efforts if the inventor is actively involved. 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 with the company and your continuing role within the University. Your participation with commercial entities is governed by Stanford conflict-of-interest and conflict-of-commitment policies. (<http://doresearch.stanford.edu/policies/research-policy-handbook/conflicts-commitment-and-interest/faculty-policy-conflict>)

## WHAT OTHER TYPES OF AGREEMENTS AND CONSIDERATIONS APPLY TO TECH TRANSFER?

- **Non-Disclosure Agreements (NDAs)** [also known as Confidential Disclosure Agreements (CDAs)] are often used to protect the confidentiality of an invention during evaluation by potential licensees. NDAs also protect proprietary information of third parties that University researchers need to review in order to conduct research or evaluate research opportunities. We enter into NDAs for University proprietary information shared with someone outside of the University. Depending on the circumstance, ICO can give advice about incoming NDAs related to research contracts. Due to Stanford's "Openness in Research Policy," Stanford does not generally sign separate NDAs that bind principal investigators or co-researchers who have access to the confidential information.

- **Material Transfer Agreements (MTAs)** are used for incoming and outgoing materials at the University. ICO administers MTAs for incoming and outgoing materials for research purposes. OTL administers MTAs for materials being sent to companies in conjunction with licensing. These agreements describe the terms under which University researchers and outside researchers may share materials, typically for research or evaluation purposes. Stanford does not require or encourage the use of an MTA when you are giving non-human, biological material to be used for in vitro research purposes to your research colleagues. See page 15 for additional information about MTAs.
- **Inter-Institutional Agreements (IIAs)** describe the terms under which two or more institutions (e.g., two universities) will cooperate to assess, protect, market, license, and share in the royalties received from licensing jointly owned intellectual property.
- **Option Agreements**, or **Option Clauses** within research agreements, describe the conditions under which the University reserves a right 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 the University. Option Agreements are entered into with third parties wishing to evaluate the technology prior to entering into a full license agreement.
- **Sponsored Research Agreements** describe the terms under which sponsors provide research support to the University. These are negotiated by ICO. More information about ICO can be obtained at [www.stanford.edu/group/ICO/](http://www.stanford.edu/group/ICO/).

# Commercialization

## WHAT ACTIVITIES OCCUR DURING COMMERCIALIZATION?

The signing of a License Agreement is usually the beginning of a long term relationship. Most licensees continue to develop an invention to enhance the technology, reduce risk, prove reliability, and satisfy the market requirements for adoption by customers. This can involve additional testing, prototyping for manufacturability, durability and integrity, and further development to improve performance and other characteristics. Documentation for training, installation, and marketing is often created during this phase. Benchmarking tests are often required to demonstrate the product/service advantages and to position the product in the market. The licensee's performance is monitored by the licensing specialist for the duration of the license. Most License Agreements require periodic financial or development reports from the licensees.

## WHAT IS MY ROLE DURING COMMERCIALIZATION?

Your role can vary depending on your interest and involvement and on the interest of the licensee in utilizing your services for various assignments.

## WHAT ROYALTIES ARE GENERATED FOR THE UNIVERSITY IF COMMERCIALIZATION IS SUCCESSFUL OR UNSUCCESSFUL?

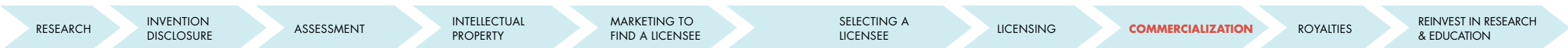
License agreements often include requirements for payments in the form of upfront fees, minimum annual royalties, milestone payments, earned royalties and sometimes equity. Licensing fees (upfront, annual minimum, milestones) range from very modest amounts to hundreds of thousands of dollars. If licensed products are eventually developed and sold (which can take years to occur), earned royalties can generate revenues. These

payments are usually based on product sales and can vary considerably. If equity is included in a license, it may yield a return for the inventors and the University, but only if the equity can be liquidated through a successful public offering or the sale of the company.

Most licenses do not yield substantial royalties. A study of licenses at U.S. universities demonstrated that less than 1% of all licenses yield over \$1 million. However, the rewards of an invention reaching the market are often more significant than the financial considerations alone.

## WHAT WILL HAPPEN TO MY INVENTION IF THE START-UP COMPANY OR LICENSEE IS UNSUCCESSFUL? CAN THE INVENTION BE LICENSED TO ANOTHER ENTITY?

Licenses typically include performance milestones that, if unmet, can result in termination of the agreement. This allows OTL to pursue subsequent licensing to another business. However, time delays and other considerations can hinder this re-licensing effort.



# Royalty Distributions

## HOW ARE LICENSE ROYALTIES DISTRIBUTED?

OTL is responsible for managing the patent expenses and license royalties associated with each technology. According to Stanford policy, revenues from license fees, royalties and equity – minus OTL's administrative fee and any unreimbursed expenses – are shared with the inventors. Royalty distributions are described in Stanford's Policy on Inventions, Patents, and Licensing (<http://doresearch.stanford.edu/policies/research-policy-handbook/intellectual-property/inventions-patents-and-licensing>).

## WHAT IF STANFORD RECEIVES EQUITY FROM A COMPANY?

Inventors receive license equity distributions under standard Stanford royalty sharing policy in addition to any equity they may receive directly from the company (for their personal involvement in the company).

## WHAT ARE THE TAX IMPLICATIONS OF ANY ROYALTY DISTRIBUTIONS I RECEIVE FROM THE UNIVERSITY?

License royalties are typically reported under "Other Income" in Box 3 of Form 1099-MISC. Consult a tax advisor for specific advice.

## HOW ARE INVENTOR PAYMENTS DISTRIBUTED IF THERE ARE MULTIPLE INVENTORS AND/OR MULTIPLE INVENTIONS IN A LICENSE?

For patented inventions, the "inventors' share" of royalties is divided equally among the inventors unless all inventors agree in writing to another distribution formula of their collective choice. Sometimes technology such as software or biological materials is developed by a number of individuals over a long time period. In these cases, the technology may be considered an institutional work and the inventors' share of royalties is distributed to the laboratory in which the work was created. If multiple inventions are included in one license agreement, OTL will develop an appropriate allocation plan.

## HOW IS EQUITY FROM A LICENSE DISTRIBUTED?

We may at times accept equity in lieu of cash as part of the license issue fees. After 15% is deducted for OTL's administrative fee, inventors ordinarily receive their proportional share (1/3) of equity directly from the licensee, and the remainder is earmarked for the OTL Research and Fellowship Fund (administered by the Dean of Research). The University share is managed by the Stanford Management Company until it is liquidated.

# Cycle Of Innovation

## WHAT DOES OTL DO TO REINVEST IN RESEARCH AND EDUCATION?

OTL shares the royalties it generates with Stanford inventors, schools and departments, as well as with partnering institutions. In turn, these returns are reinvested in additional research and education. In particular, licensing proceeds support the Graduate Fellowship Fund and the OTL Research Incentive Fund, administered by the Dean of Research. These two funds subsidize graduate students in research disciplines across the university and enable early-stage, innovative research ideas through direct funding of projects, facilities and instrumentation. Collectively, these programs and policies foster the creation of the next generation of research, innovators, and entrepreneurs.

Every year, OTL builds relationships with our Stanford inventors and licensees while assisting in the transfer of Stanford-generated knowledge and technology to the private sector. The important university-industry relationships developed through technology transfer and products sold by our licensees help us create a better world for us all.

STANFORD UNIVERSITY  
OFFICE OF TECHNOLOGY LICENSING  
1705 EL CAMINO REAL  
PALO ALTO, CA 94306-1106  
PHONE: (650) 723-0651  
FAX: (650) 725-7295  
[info@otlmail.stanford.edu](mailto:info@otlmail.stanford.edu)  
[otl.stanford.edu](http://otl.stanford.edu)  
[www.stanford.edu/group/ICO/](http://www.stanford.edu/group/ICO/)  
DESIGNED BY ARTEFACT DESIGN

