TECHNOLOGY TRANSFER

An Inventor's Guide

Mississippi State University





MISSISSIPPI STATE UNIVERSITY

CENTER FOR ENTREPRENEURSHIP & OUTREACH

OFFICE OF TECHNOLOGY MANAGEMENT

Our mission is to assess, protect, and manage the intellectual property (IP) developed by MSU faculty, staff, and students. We serve the university and its stakeholders by facilitating the transition of MSU-owned IP to the marketplace, stimulating economic development and increasing the impact of MSU research.

Note: This booklet is based on the University of Michigan's "Inventor's Guide to Technology Transfer." We are very grateful to the staff of the UM Office of Technology Transfer for their kind permission to use their excellent material.

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The Inventor's Guide to Tech Transfer outlines the essential elements of tech transfer at Mississippi State.

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

For more information, visit http://www.otm.msstate.edu or call OTM at 662-325-9263.

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Research, Innovation and Entrepreneurship: A Winning Combination



Dr. Mark E. Keenum
President

Mississippi State University has been committed to making a difference since our founding in 1878. Today, we stand as our state's leading university, and are recognized nationally and internationally as a leader in transformative research. I am proud of the fact that we are responsible for more than half of all the research in the state. In fact, Mississippi State research added up to almost a quarter-of-a-billion dollars in R&D expenditures in FY 2017.

Our faculty, staff and students are using research, innovation and entrepreneurship to develop and deploy new intellectual property that is making a difference across a range of sectors, including advanced engineering, agriculture, aquaculture, human and animal health, to name but a few examples. I applaud them for their efforts.

I also encourage all of our researchers – students, faculty and staff – to reach out to the Office of Technology Management and the Center for Entrepreneurship and Outreach to learn more about how to successfully take your work into the marketplace, launch a start-up or spin-off business, or pursue a patent. By working together, we will continue to fulfill faithfully our mission of teaching, research and service in the 21st Century and well beyond.

Dr. Mark E. Keenum is the 19th President of Mississippi State University.

OVERVIEW

What is Technology Transfer?

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

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

The reasons are unique to each researcher and may include:

- Attracting research sponsors and leveraging additional research funding
- Making a positive impact on society
- Feeling a sense of personal fulfillment
- Achieving recognition and financial rewards
- Generating additional lab/departmental funding
- Meeting the obligations of a research contract
- Creating educational opportunities for students
- Linking students to future job opportunities

What is Mississippi State's Office of Technology Management (OTM)?

OTM is a University service unit composed of specialists in licensing, patenting, business development, and legal matters who are experienced in technology transfer. OTM is responsible for managing invention disclosures from all MSU schools and colleges.

How is Technology Transferred?

Technology is typically transferred through a license agreement where MSU grants rights in the defined technology to a third party, often limited to a particular field of use and/or region of the world. 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. These payments are shared with the inventors and are also distributed to the schools/colleges, departments and units to provide support for further research, education, and participation in the tech 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 tech transfer activities and generating increased research, commercialization, educational opportunities, and economic development in the United States.

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.

"As one of the nation's leading research universities and land-grant institutions, Mississippi State has been committed to teacing, research, and service since our founding in 1878. Developing intellectual property and licensing new technologies and creative discoveries are integral components of this tri-fold mission in the 21st Century."

— Dr. David Shaw
Vice President for Research and Economic Development

TECH TRANSFER

How to work with the Office of Technology Management?

We encourage you to contact OTM during your discovery process to ensure you are aware of the options that will best leverage the commercial potential of your research.

OTM staff members are trained to assist you with questions related to marketing, funding, sourcing, commerical partners, patenting and other protection methods, new business start-up considerations, University policies and procedures, and much more.

What are the typical steps in the process?

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

10 Steps to Commercialization

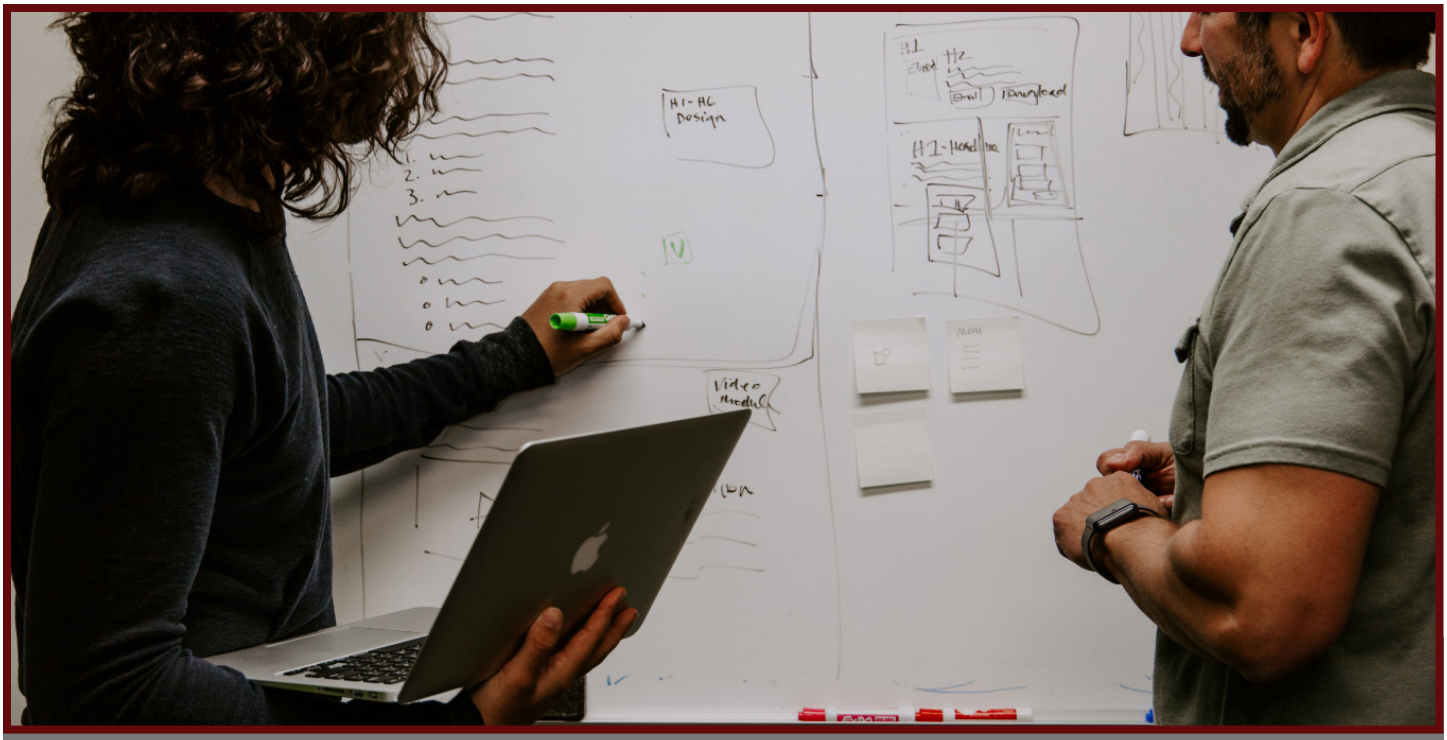
1) Research: Observations and experiments during research activities often lead to discoveries and inventions. An invention is any useful process, machine, composition of matter, or any new or useful improvement of the same. Often, multiple researchers may have contributed to the invention.

2) Pre-Disclosure: Contact OTM personnel early to discuss your invention and have them provide guidance with respect to the disclosure, evaluation, and protection processes described below.

3) Invention Disclosure: An invention disclosure is the written notice of an invention to OTM that begins the formal technology transfer process. An invention disclosure remains a confidential document and should fully document your invention so that the options for commercialization can be evaluated and pursued.

4) Assessment: The assessment period is the time in which your Technology 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 commericialization 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: The protection process is the time where protection for an invention is pursued. 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 typically will require several years and tens of thousands of dollars to obtain issued U.S. and foreign patents. Other protection methods include copyright, trademark, and confidential know-how.



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

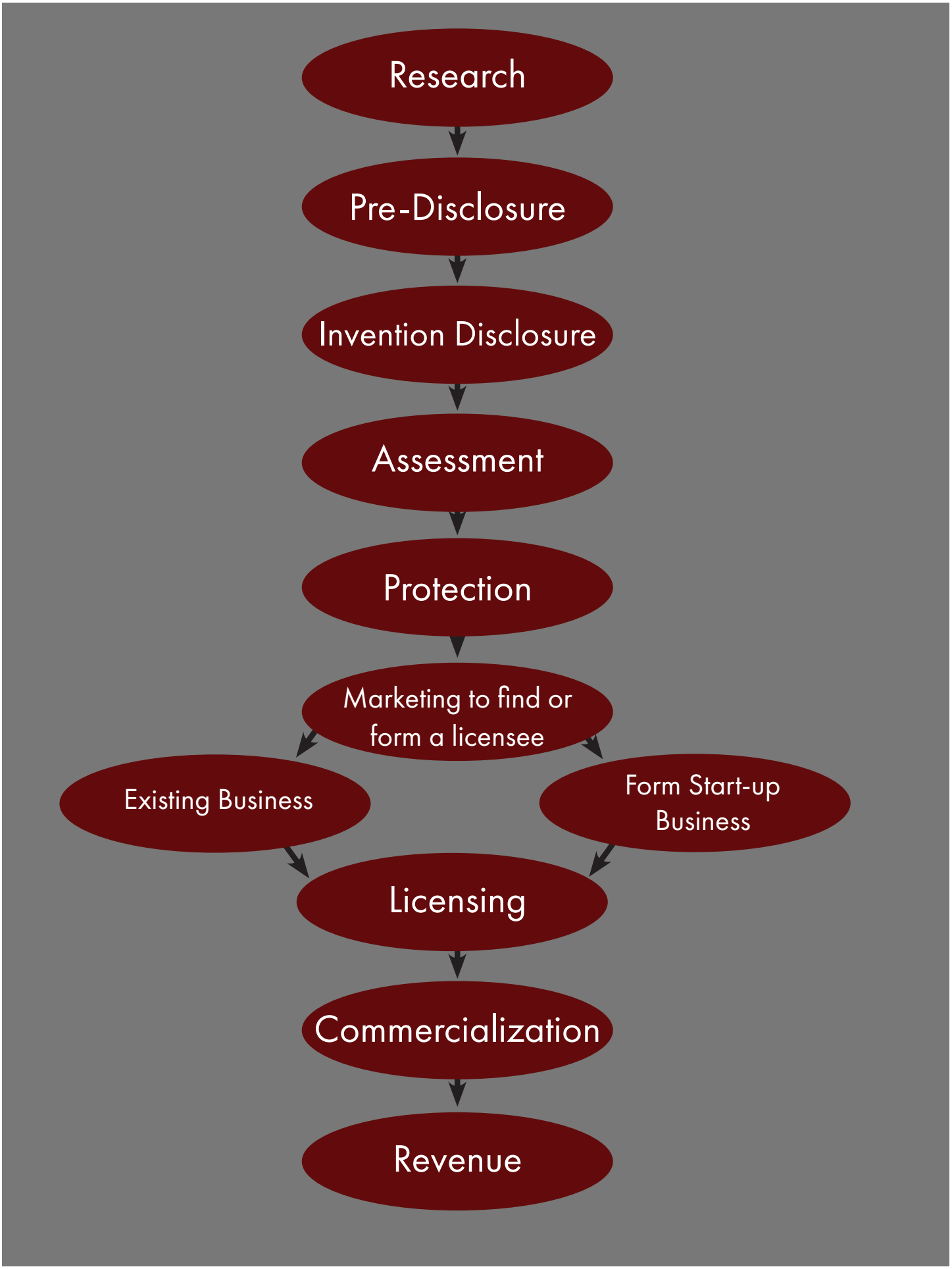
7a) Form a Start-up: If creation of a new business start-up has been chosen as the optimal commercialization path, MSU center for entrepreneurship and outreach will assist the founders in planning, creating, and finding funding for the start-up.

7b) Existing Business: If the invention will be commercialized by one or more existing companies, OTM will seek potential licenses and work to identify mutual interests, goals, and plans to fully commercialize this technology.

8) Licensing: A license agreement is a contract between MSU and a third party in which MSU'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 or with an established company. An option agreement is sometimes used to enable a third party to evaluate the technology for a limited time before licensing.

9) Commercialization: The licensee company 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 activites.

10) Licensing Revenue: Revenues received from licenses are distributed to inventors, the administrative units, and the Office of Technology Management (OTM). Additional details can be found in the Revenue Distributions section of this document.


Research
Pre-Disclosure
Invention Disclosure
Assessment
Protection
Marketing to find or form a licensee
Existing Business
Form Start-up Business
Licensing
Commercialization
Revenue

How long does each tech 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 you help in this process?

- Call OTM at 662-325-9263 when you believe you have created or discovered something unique with potential commercial value.

- Complete and submit the MSU Invention Disclosure Form (see http://otm.msstate.edu/inventors/forms.php) before publicly disclosing your technology or submitting a manuscript for review and publication.

- Contact OTM before having any discussions with people outside the MSU community to avoid losing patent rights and possibly hindering the opportunity to commercialize your invention.

- Be sure to list companies and contacts you believe might be interested in your invention and anyone who has already contacted you about it on the MSU Invention Disclosure Form. 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 OTM and outside patent counsel requests. While some aspects of the patent and licensing process may require significant participation on your part, we will strive to make efficient use of your valuable time.

- Keep OTM informed of upcoming publications or interactions with companies related to your intellectual property.

Research

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

Yes, but since patent rights are effected by these activities, it is best to submit an Invention Disclosure (discussed in next section) well before communicating or disclosing your invention to people outside MSU. There are significant differences between the U.S. and other countries as to how an enabling public disclosure (i.e., publication, presentation at a conference, student thesis publication, student thesis defense, discussion with industry) affects the ability to 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 OTM of any imminent or prior presentation, lecture, poster, abstract, website description, research proposal submission, disertion/ masters thesis, publication, or other public presentation including the invention.

May you use your material or intellectual property from others in your research?

Yes, but it is important to carefully document the date and conditions of use so that we can determine if this use may influence the ownership and license rights of your subsequent research results. If you wish to obtain materials from outside collaborators, an **incoming Material Transfer Agreement (MTA)** should be completed.

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

Yes, but it is important 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)** must be completed for this purpose. It may also be necessary to have a Confidentiality Agreement completed to protect your research results or intellectual property. Contact OTM at (662) 325-9263 to assist you in completing outgoing MTAs or Confidentiality Agreements.



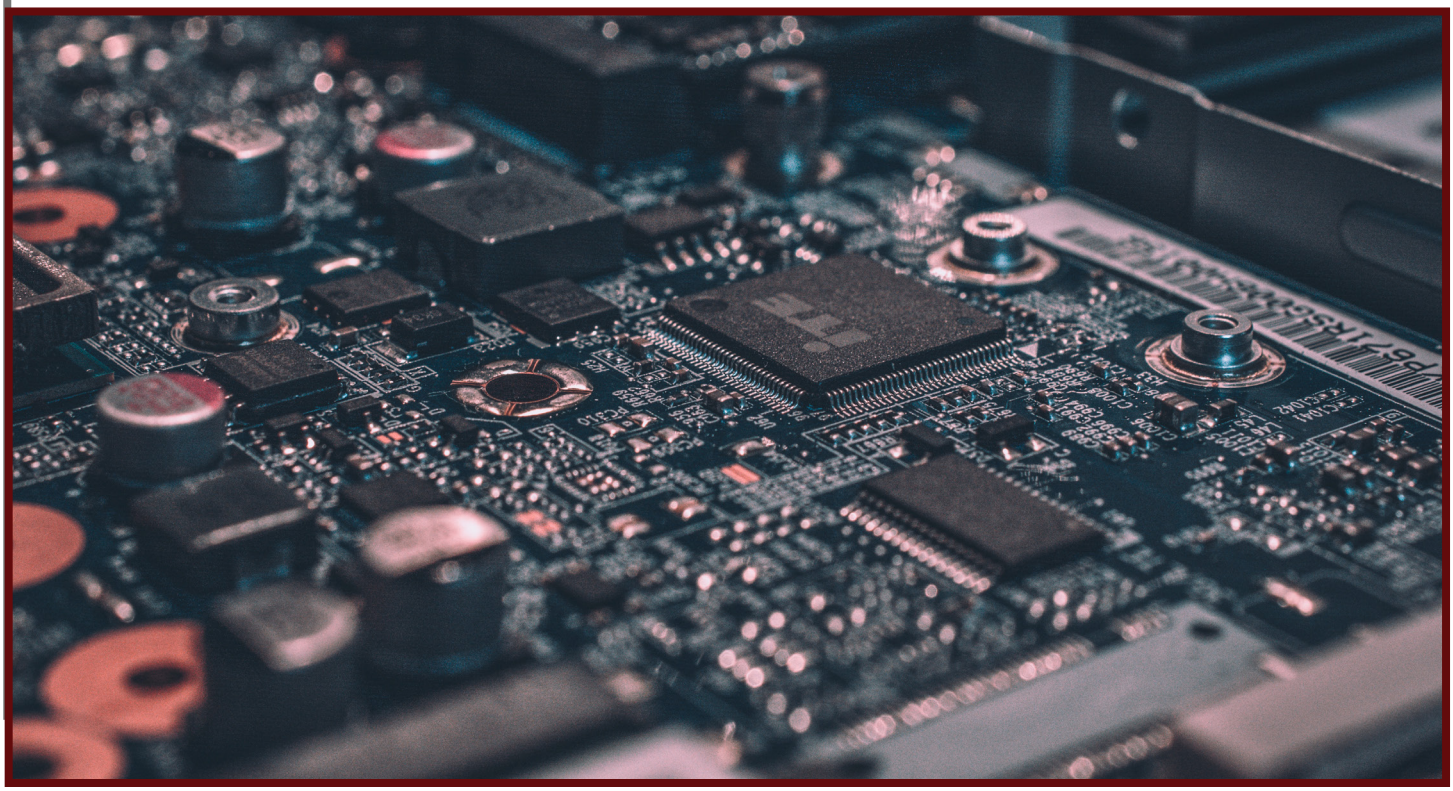
What rights does a research sponsor have to any discoveries associated with your research?

The Sponsored Research Agreement should specify the Intellectual Property (IP) rights of the sponsor. The university generally retains ownership of the patent rights and other intellectual property resulting from sponsored research. However, the sponsor may have rights to obtain a license to the defined and expected outcomes of the research. Often, sponsored research contracts allow the sponsor a limited time to negotiate a license for any patent or intellectual property rights developed as the result of the research. Even so, 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.

Sponsored research projects are handled by the MSU Office of Sponsored Projects ("OSP"). OSP project representatives work closely with OTM on IP issues in sponsored research agreements. If you have questions about sponsored research, please contact OTM or the OSP project representative responsible for the sponsor.

What about consulting?

When researchers enter into consulting agreements, they are deemed to be acting outside of the scope of their employment. Therefore consulting arrangements are not negotiated by the University nor formally reviewed by OTM. Researchers who enter into consulting agreements should familiarize themselves with MSU's policies relevant to consulting activities and are expected to ensure that the terms of the consulting arrangement are consistent with these policies, including those related to IP ownership, employment responsibilities, and use of Intellectual Property. OTM is available to provide informal advice on how your consulting agreement relates to MSU Intellectual Property. For additional information on consulting guidelines or other outside employment, please review the MSU Outside Employment and Consulting policy (HRM 60.415) at https://www.policies.msstate.edu/policypdfs/60415.pdf.



Invention

What is an Invention Disclosure?

An Invention Disclosure is a written description of your invention or development that is provided to OTM. The Invention Disclosure should list all sponsors of the research and include all of the information necessary to begin pursuing protection, marketing, and commercialization. This document will be treated as "University Confidential". Based on the Invention Disclosure, OTM may generate a non-confidential description of your invention in order to assist in marketing the technology. Once potential partners have been identified and confidentiality agreements have been signed, more detailed exchanges of information can be made.

Why should you submit an Invention Disclosure?

When you disclose your invention to OTM, it starts a process that could lead to the commercialization of your technology. 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 file a prompt disclosure, which will be reported to the sponsoring agency. If the research resulting in your invention was sponsored by a company, an invention disclosure is an important first step in fulfilling our obligations to the sponsor.



How do you know if your discovery is an invention?

You are encouraged to submit an Invention Disclosure for all inventions and developments that you feel may solve a significant problem and/or have potential commercial value. If you are in doubt, contact OTM to discuss the invention and strategies for commercialization.

When should you complete an Invention Disclosure?

You should complete an Invention Disclosure whenever you feel you have discovered something unique with potential 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), an invention may have restricted or minimal potential for patent protection outside of the United States. Differences exist between the U.S. and other countries on the impact of early publication on a potential patent. Be sure to inform OTM of any imminent or prior presentation, lecture, poster, abstract, website description, research proposal, dissertion/masters thesis, publication, or other public presentation describing the invention.

Should you disclose research tools?

Yes, if your new tools would benefit other researchers and you are interested in providing them to the research community. Typically, research materials are tools such as antibodies, vectors, plasmids, cell lines, mice, and other materials used as "tools" in the research process. Most research tools do not necessarily need to be protected by patents in order to be licensed to commercial third parties. If you have research tools to provide to others (including research collaborators), OTM will work with you to develop the appropriate protection, license agreements, and distribution strategy.

How do you submit an Invention Disclosure?

You can download an invention disclosure form and simple instructions from http://otm.msstate.edu/inventors/forms.php. New invention disclosures are assigned to Technology Licensing Associates within OTM. If you have any questions, call OTM at 662-325-9263 or email us at otm@msstate.edu.

Who is an inventor?

In general terms, an inventor is someone who contributed to the conception of the invention or to the further development of an important element of the invention in reducing it to practice.

Inventorship is not the same as authorship, however. A "pair of hands" who only carried out the orders of another person is not an inventor, even though such a person may be considered a co-author or contributor in a scholarly sense. Inventorship has a legal definition and will be determined by a patent attorney at the time of filing of any patent application. If needed, please contact OTM or see http://otm.msstate.edu/ for further guidance.



Ownership

What is "intellectual property"?

Intellectual Property (IP) is a legal concept which refers to creations of the mind for which exclusive rights are recognized. Under intellectual property law, owners are granted certain exclusive rights to a variety of intangible assets, such as musical, literary, and artistic works, discoveries and inventions, words, phrases, symbols, and designs. Common types of intellectual property rights include copyright, trademarks, and patents.



Who owns what you create?

Ownership of IP is governed by the MSU IP Policy (OP 76.01) (https://www.policies.msstate.edu/policypdfs/7601.pdf), and it depends upon the employment status of the invention creators and their use of University Facilities.

Considerations include:

- What is the source of the funds or resources used to create 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, MSU owns inventions made by its employees while acting within the scope of their employment or using university resources. Additionally, the terms of a Sponsored Research Agreement may impact ownership. When in doubt, it is best to call OTM for advice.

Who owns rights to discoveries made while consulting?

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



Should you list visiting scientists or scientists at other institutions on your Invention Disclosure?

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

Can a student contribute to an invention?

Yes, many students contribute to inventions at MSU under a wide variety of circumstances. Students should be named as inventors when appropriate. Typically, undergraduate students own their rights to an invention unless the invention was created by a student in a capacity as an MSU employee and/or the student used more than incidental MSU resources. A student IP flowchart explains when the university may have rights to student-created IP. (http://otm.msstate.edu/inventors/Determining_IP_Ownership.pdf).

Who owns rights to discoveries made while on sabbatical?

Generally, if you are on sabbatical paid by the university, MSU still retains rights to any discoveries connected to your scope of employment. Please contact OTM before your sabbatical to ensure that ownership considerations are documented.



Assessment

How does OTM assess Invention Disclosures?

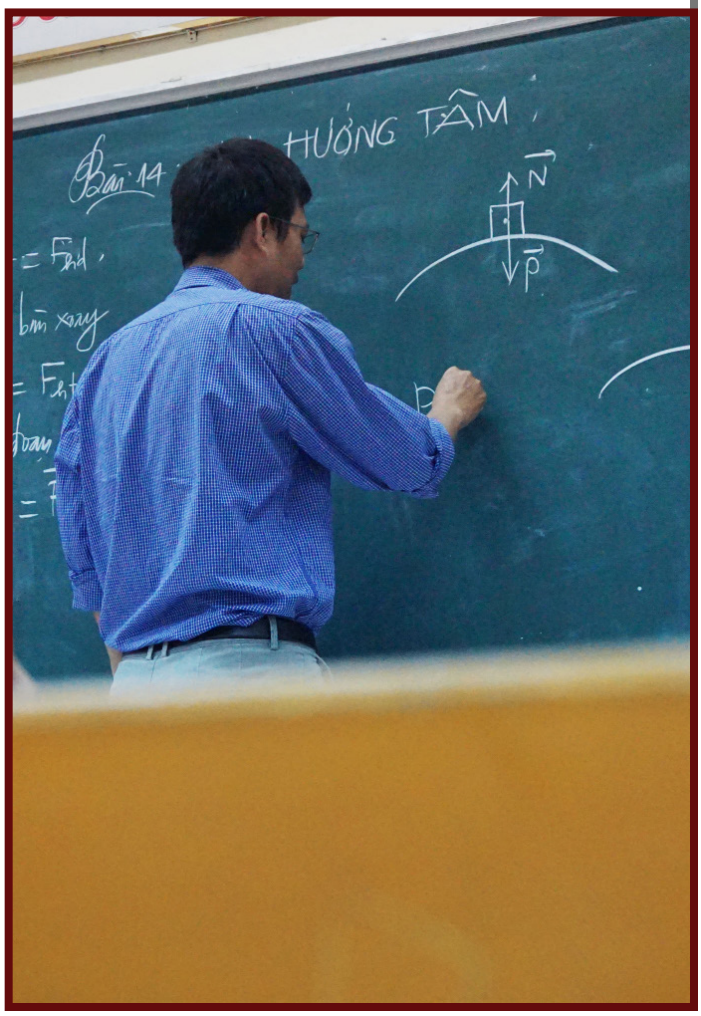
Technology Licensing Associates at OTM examine each invention disclosure to review the novelty and protectability of the invention and marketability of potential products or services, relationship to related intellectual property, size and growth potential of the relevant market, amount of time and money required for further development, pre-existing rights associated with the intellectual property (IP), and potential competition from other products/ technologies. This assessment may also include consideration of whether the intellectal property can be the basis for a new business start-up.

If the inventors believe that all IP should be licensed non-exclusively to all potential users for the public good, will the University honor this request?

OTM will work with you to develop the appropriate commercialization strategy for the invention. Some techologies 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 accomodate inventors' commercialization wishes. However, the final decision will be determined by our assessment of which strategy will produce the most benefits for the general public, consistent with governmental or institutional policies and other obligations.

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

Generally, OTM supports University software developers who choose to share their programs through open source mechanisms, provided the University retains the right to distribute the program freely, that open sourcing is consistent with obligations to sponsors, and that each developer's unit supports the decision. Developers should seek authorization from an appropriate department chair or dean.



Patents

What is a patent?

A patent gives the owner 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 owner any affirmative right to practice a technology since it may fall under a broader patent owned by others; instead, a 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 occuring 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 occuring 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 (USPTO)?

The USPTO is the federal agency, organized under the Department of Commerce, that administers patents on behalf of the government. The USPTO employs patent examiners skilled in all technical fields in order to examine patent applications.

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

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. Keep in mind that inventorship is very different from authorship.

Who is responsible for patenting?

OTM contracts with outside patent law firms to prepare and prosecute patent applications, thus assuring access to patent specialists in diverse technology areas. Inventors work with the patent counsel in drafting the patent applications and responses 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 USPTO). 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 you to sign an Inventor's Declaration and an Assignment, under which you assign your rights in the patent to MSU.

In about one year, depending on the back-log at USPTO and the technology space, the patent attorney will receive written notice from the USPTO as to whether the application and its claims have been accepted in the form as filed. More often than not, the USPTO rejects the application because either certain formalities need to be cleared up, or the claims are not patentable over the "prior art" (all existing publically disclosed information in this technology space). The response by the USPTO is referred to as an Office Action.

If the application is rejected, then 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 USPTO's position is incorrect. This procedure is referred to as patent prosecution. Often it will take two USPTO Office Actions and two responses by the patent attorney —and sometimes more— before the application is resolved.

The resolution can take the form of a USPTO notice that the application is allowable; in other words, the USPTO agrees to issue a patent. During this 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 USPTO holds patent applications confidential until published by the USPTO, 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.

Is there such 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") patent application?

In certain circumstances, U.S. provisional patent applications can provide a tool for preserving patent rights while temporarily reducing costs and providing extra time to prepare a regular application. This application occurs because it 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. Since an applicant only receives the benefit of the earlier filing date for material that is adequately described and enabled in the provisional application, you may need 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 individul 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 they publicly disclose 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 in which a patent may be filed after any enabling public disclosure.

What is gained by filing an application under the Patent Cooperation Treaty (PCT)?

The PCT application provides two advantages. First, it delays the need to file costly foreign applications until 30 months after the filing date. This 30-month period gives 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 assess the patentability of the claims which can save significant costs in prosecuting foreign patent applications.



What is the time line of the patenting process and resulting protection?

Currently, the average U.S. utility patent application pends 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 USPTO-mandated maintenance fees are paid.

Why does MSU protect only some intellectual property through patenting?

Patent protection is often a requirement of a potential commercialization partner (licensee) because it can protect the commercial partner's often sizable investment required to bring the technology to market. Due to the expense and the length of time required to obtain a patent, patent applications are not possible for all invention disclosures. We carefully review the commercial potential for an invention before investing in the patent process. Hoewever, because the need for commencing a patent filing usually precedes finding a licensee, we look for creative and cost effective ways to seek early protections for as many promising inventions as possible. Because provisional patent applications (the first step in the patenting process) are relatively low cost, OTM will pursue provisional patent applications for many invention disclosures that come into the office.

Who decides what gets protected?

When a new technology is licensed, OTM works with the licensee to make patenting decisions and reimburse associated patent expenses. When a provisional patent application is not licensed, OTM will work with the inventors, department heads, and associated deans of research to decide whether the application will be converted to a Utility U.S. patent application based on its potential commercial value and the availability of resources.

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

The cost of a provisional patent application can range between $2,000 to $3,500. Filing a regular U.S. patent application may cost between $8,000 and $12,000. Obtaining an issued patent may require an additional $10,000 to $20,000 for patent protection. Without a license, OTM rarely pursues international patent protection beyond filing a PCT because it is cost prohibitive.



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

If you created the invention under a sponsored research or consulting agreement with a company, OTM will need to review that contract to determine ownership and other rights associated with the contract and to determine the appropriate next steps. Should the technology be jointly owned with another academic institution, OTM will usually enter into 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. If the technology is jointly owned with another company, OTM will work with the company to determine the appropriate patenting and licensing strategy.

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

OTM may accept the risk of filing a patent application before a licensee has been identified. After the invention has been licensed to a licensee, OTM negotiates with the licensee to pay the patenting expense. If OTM has been unsuccessful in identifying a licensee (or if it is determined that OTM cannot obtain resonable claims from the USPTO), it may be necessary to terminate further patent prosecution.

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 copyright 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 in 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.

What is a derivative work?

A "derivative work" is a work based on one or more pre-existing works, such as translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications, which, as a whole, represent an original work of authorship, is a "derivative work." The owner of a copyright generally has the exclusive right to create derivative works.





How do you represent a proper University copyright notice?

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

© Mississippi State University 2019

How can you learn more about MSU copyright policies?

We recommend that you begin by reviewing material at: http://otm.msstate.edu/.

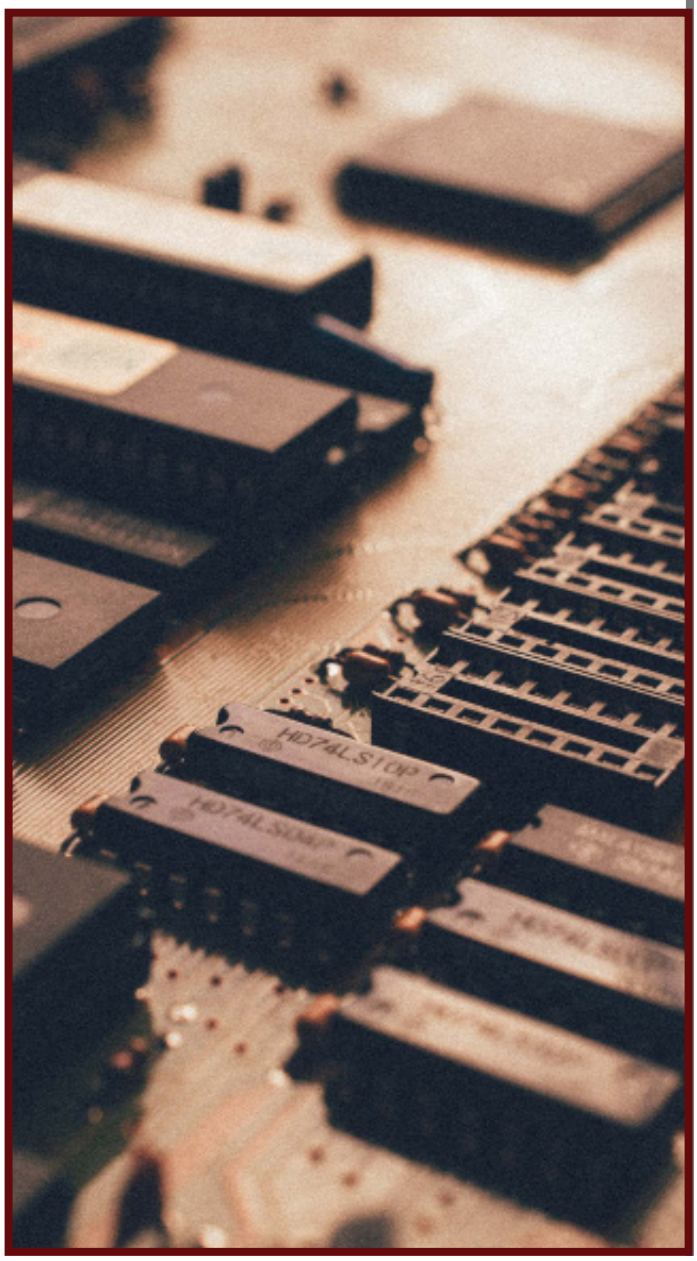
If you have additional questions, please contact OTM.

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 a trademark registration?

Trademark registration is a procedure in which the United States Patent and Trademark Office (USPTO) 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.



Start-Ups/MURA

What is a start-up company and why choose 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. A few key factors when considering a start-up company are:

- 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)
- Sufficiently large competative advantage and target market
- Potential revenues sufficient to sustain and grow a company

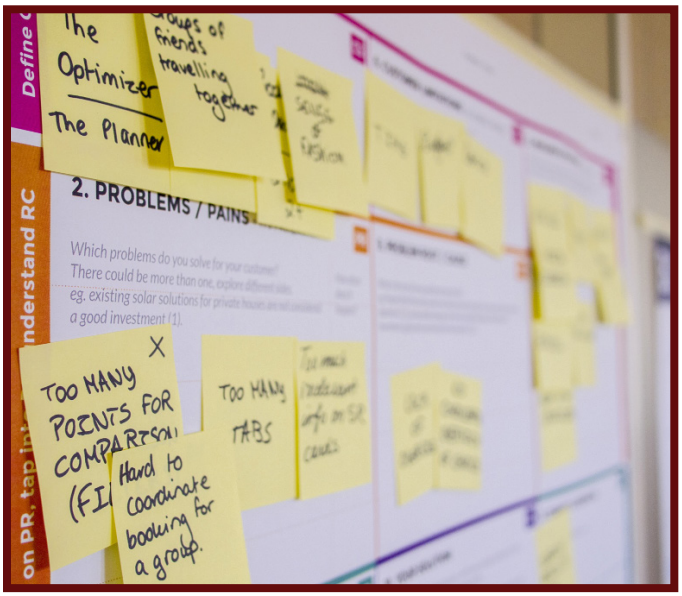
MSU promotes and supports entrepreneurship including the formation of start-up companies with an entrepreneurship resource network that includes the following resources:

- MSU Center for Entrepreneurship and Outreach– https://ecenter.msstate.edu/
- Office of Technology Management (OTM)– http://www.otm.msstate.edu
- Thad Cochran Research, Technology, & Economic Development Park– http://www.cochranresearchpark.com/information/detail.php?info=contactus
- Small Business Development Center (SBDC)– https://www.business.msstate.edu/research/sbdc/

Who decides whether to form a start-up?

The choice to establish a new company for commercializing intellectual property is a joint decision made by the inventor(s) with advice and support from the entrepreneurship resource networks at MSU. If a new business start-up is chosen as the preferred commercialization path, then the entrepreneurship resource network can assist you and the other founders in meeting investors, consultants, and entrepreneurs and accessing other resources for advice at MSU to help start the company.

OTM will work with the company to obtain MURA status (next page), and then OTM will negotiate with a representative of the company to grant a license to the new company. Also it is wise for investors to have agreements regarding their roles with the start-up reviewed by their own legal counsel to ensure that all personal ramifications—including taxation and liabilities—are clearly understood.



MURA- Mississippi University Research Authority

I. Faculty Participation in Start-Up Companies.

Faculty ownership (equity) in a start-up company can be an excellent means of transferring university developed technology to the public sector and promoting economic development. This is particularly true for embryonic technology where existing companies are unwilling to undertake the required research and development effort.

However, State ethics laws prohibit state employees from maintaining a material financial interest in a company that "contracts" or licenses technology from the university except when it is approved by the Mississippi University Research Authority (MURA). MURA assures that the start-up company/university relationships, that could constitute a conflict of interest under State law, are managed properly.

The MURA Law requires university employees to submit a MURA letter applying for permission to establish and maintain a material financial interest in a company formed to license and commercialize technology they developed as a university employee. The MURA letter is submitted to the Office of Technology Management (OTM) for review and further processing. Key requirements of the application letter are shown below.

The letter should fully describe the nature of the enterprise, the faculty interest in the company, and how the company will benefit the economy of Mississippi. In addition, state that the company will not adversely affect the University or any substantial state interest. Please submit the MURA letter PRIOR TO ANY FINANCIAL TRANSACTION and provide updates any time a change occurs in the company. Annual updates are also required.

The review and approval procedure is shown below:
1. The inventor/developer prepares a draft MURA letter and sends it to the OTM office for review.

2. OTM reviews the letter and works with the inventor/developer to prepare a final version for signatures.

3. OTM will circulate the final version of the MURA letter to the Dept. Head/Director, Dean/Vice President, VP for Research and finally to the President for signature.

4. After the President approves the MURA letter, it is returned to VP for Research who forwards the letter to MURA for approval.

5. The VP for Research will inform applicant and the OTM office of MURA approval and handle annual follow-up.

Entrepreneurship

Overview

When a technology is not quite ready to be licensed to an existing company or has the power to disrupt an existing market, starting a new company can be a great pathway to get technology to the market. MSU strongly prioritizes entrepreneurship as part of its core mission of driving economic development in the state and around the world.

What's Different?

Licensing to an existing company versus a startup company, from a university process standpoint **is virtually the same.** If you choose to form a new company, you will execute the same license as an external company would. Legally, your new startup is an external company.

The work required to license a technology to an existing company or starting a new company requires roughly the same work prior to launch. All businesses want to understand how the technology results in a product that solves a problem for a customer. You must do this work whichever pathway you choose to be successful.

So what is different? From a process standpoint, you will need to file for approval under the Mississippi University Research Act (MURA), which simply manages your conflict of interest of deriving benefits and expending efforts towards a company using state technology as a state employee. OTM manages this process and can assist you further. See pages 23-24.

The key difference lies in what happens **after** the license. With a startup company, you are responsible for **executing the business.** In other words, you must build an organization and team that will create and deliver value for an end user. This is where MSU's Center for Entrepreneurship and Outreach (E-Center) can assist.

Is a Startup Right for Me?

We encourage faculty to consider the following four questions to decide if a startup company is right. Starting a new company is an immense amount of hard work – often outside of one's comfort zone – and requires a lot of your time after-hour with little-to-no pay in the beginning for the founding team. You first should decide if you ***personally*** have the energy, interest, and time to support a startup. Further, a significant percentage of faculty entrepreneurship endeavors fail because he or she does not want to relinquish day-to-day execution to a seasoned person with a business background.



Entrepreneurship

Is a Startup Right for Me?

1. Is there an existing clear and interested licensee?

If the answer to this question is a strong yes, typically it's a good idea to do a traditional license to that company rather than start a new company. The licensee bears all the risk of generating a return on the technology. If someone is willing to take that on, it's a good idea to let them go for it. The overall risk for the faculty member, university, and other parties is much lower to execute a license.

2. Is the technology-readiness level (TRL) too low for a typical license?

Most companies want to license technology that is "ready for a consumer" or that is the "missing piece" to finish a consumer-ready product. If the technology is not at that state, a startup company tends to be a good option, because they can absorb the risk of finding the right product-market fit.

3. Is the team complete and ready to start a company?

For the purposes of entrepreneurship, a complete team includes all the people necessary to get the product from technology into the hands of an end customer.

MSU wants to keep its top researchers doing world-changing research. It is simply not possible to do research and be the CEO of a company. Therefore, we encourage researchers to work with the E-Center to identify a strong potential business lead. Graduate students who are familiar with the technology, but not necessarily interested in a career of research can often make fantastic business leads. The E-Center provides numerous training and mentoring resources to coach that individual to rise into the business leadership role.

In general, our advice is that faculty members do not attempt to be "the CEO", unless they are willing to forgo their career in research. Being the CEO is more than a full-time job.

4. Could the technology lead to a wide array of products that is currently unclear?

In most non-startup licenses, there is a very specific use case for the product. If there is the potential for a large variety of products (excess of $1B) in opportunity, it's often in everyone's best interest to pursue a startup company.

Process

At MSU, we break the process of starting a research-based technology company into 5 steps. MSU's E-Center hosts two programs to help you through this process. Please refer to the Program section for additional details.

0. (Before starting) Complete Research & Development to at least TRL 3.
1. Formulate Business Value Proposition
2. Conduct Primary Market Research
3. Complete an Investable Business Plan Package
4. Capitalize the Business

Entrepreneurship

Process

0. (Before starting) Complete Research & Development to at least TRL 3.

Prior to the process of starting a company, you should complete necessary R&D to advance the technology to a TRL 3 or higher. Most of this work should be funded by research grants or private industry sponsored research.

1. Formulate Business Value Proposition (NSF I-Corps Site / MSU VentureCatalyst™ Stage 1)

The first step towards starting a business begins with answering a few core questions and identifying the team necessary to craft the business. Those questions are: a) What customer problem are you solving; b) What is your solution; c) Who is your target customer; d) How do you reach them; e) Who is the competition and how are you better? The answers to these questions begin to build a "business model".

2. Conduct Primary Market Research (NSF I-Corps Site / VentureCatalyst™ Stage 2)

The next step is to "get out of the lab" and go talk to people who fit your proposed customer demographic. Your objective is not to pitch a product. You should think of every question answered above as a hypothesis. Your goal is to talk to real people to learn about what their pains, gains, and tasks are in their daily environment. Through this process you should continually adjust your business model and product to better align with what they want. The goal is to use real people to validate the business model.

3. Complete an Investable Business Plan Package (MSU VentureCatalyst™ Stage 3)

Once you have sufficient customer feedback, the next phase is to create a business plan, set of financial projections, and an investor pitch deck. MSU's E-Center will assist you with this process and pair you with experienced business mentors.

4. Capitalize the Business (MSU VentureCatalyst™ Stage 4)

The final step is to sufficiently capitalize the business.

Programs

MSU's E-Center offers two separate programs as part of its support services for university-affiliated entrepreneurs. The NSF I-Corps provides training on extensive first-hand market research before launch. MSU VentureCatalyst™ provides a structured pathway to launching the actual business.



Entrepreneurship

NSF I-Corps Site Team ($3,000)

The National Science Foundation (NSF) Innovation Corps (I-Corps) Program is designed to provide researchers training and funding to evaluate the market potential for their technology. This program provides basic training on the fundamentals of business models and how to conduct primary research, as well as provides $3,000 grants to go talk with would-be customers.

Benefits for MSU Researchers:

- Get grant funding to assess your technology's market potential
- Build a stream of future potential industry partners
- Gain grant lineage with the NSF
- Increase your chance of securing SBIR awards by 3x

For Graduate Students & Entrepreneurs:

- Explore the world of entrepreneurship if it's right for you
- Build business models around bleeding-edge technology
- Gain a pathway to nearly $1.5M no-cost seed capital
- MSU pays for most up-front intellectual property expenses



I-Corps requires a very specific team structure:

1. Entrepreneurial Lead (EL)

The Entrepreneurial Lead is the primary team member who possesses relevant technical knowledge and a deep commitment to investigating the commercial landscape surrounding the innovation.

a. Typically an MSU graduate student
b. Carries the bulk of the workload
c. Would be the most likely person to lead a resulting company

2. Technical Lead (TL)

The Technical Lead is a faculty member, or co-inventor designated by faculty member, who serves as a technical advisor and overall project manager.

a. Typically an MSU researcher or PI/Co-PI
b. Recognizes that their main value is in the technology
c. Willing to encourage and promote the EL

3. Industry Mentor (IM)

The Industry Mentor (IM) brings entrepreneurial experience and serves as the principal guide in determining the technology's path to market.

a. Typically someone who already has a relationship with the TL or EL
b. Someone who has commercial experience in the field of study
c. MSU's CEO can help identify potential IMs.

Entrepreneurship

VentureCatalyst™ (Up to $7,500)

MSU VentureCatalyst™ annually helps more than 100 students and faculty teams work to translate ideas into product-based, high growth companies. This comprehensive, co-curricular program combining funding, training, and mentorship with an exit goal of raising 18-months of operating capital.

Teams progress through a rigorous four-stage process, comprised of a detailed checklist preparing them to raise capital. The stages – Start, Search, Plan, Launch – walk entrepreneurs through formulating a business model, validating the customer, developing an executable plan, and raising capital. At the end of each stage, entrepreneurs must pitch to external review boards of experienced entrepreneurs and executives who evaluate company progression and investment-readiness. The entrepreneurs can request increasing amounts of grant funding at each stage. Finally, to help guide entrepreneurs through practical roadblocks, mentors curated from MSU's alumni network are paired with teams to give tactical advice on all facets of business.

Unlike traditional accelerators or incubators, VentureCatalyst™ is driven at the speed of the entrepreneur and can be completed as fast or as slow as desired, since entrepreneurs can participate in one of many offered training modules throughout the year and pick and choose at which meetings to present.This program was developed by the E-Center at Mississippi State University under strong guidance by numerous alumni and partners with heavy entrepreneurial and venture finance backgrounds.

Beyond MSU ($1.5M+)

In addition to $10,000 available from MSU for startup funds, the NSF and other federal agencies (NIH, DOD) have extensive funds to support exploration and formation of a startup company.

NSF I-Corps National Team ($50,000)

The National I-Corps Teams program extends the work of our local I-Corps Site training. National Teams participate in the seven-week I-Corps curriculum. Each I-Corps National Team learns what it will take to achieve a commercial impact with their innovation. The I-Corps curriculum enables Teams to systematically identify and address knowledge gaps to understand the most appropriate path forward for their technology concept. I-Corps Team awards support the teams' participation in the curriculum and their customer discovery work.

NSF Partnerships-for-Innovation (Two tracks: $250,000 or $550,000)

The Partnerships for Innovation (PFI) Program within the Division of Industrial Innovation and Partnerships (IIP) offers researchers from all disciplines of science and engineering funded by NSF the opportunity to perform translational research and technology development, catalyze partnerships and accelerate the transition of discoveries from the laboratory to the marketplace for societal benefit.

Entrepreneurship

This solicitation offers two broad tracks for proposals in pursuit of the aforementioned goals:

I. The Technology Translation (PFI-TT) track ($250,000) offers the opportunity to translate prior NSF-funded research results in any field of science or engineering into technological innovations with promising commercial potential and societal impact. PFI-TT supports commercial potential demonstration projects for academic research outputs in any NSF-funded science and engineering discipline. This demonstration is achieved through proof-of-concept, prototyping, technology development and/or scale-up work. Concurrently, students and postdoctoral researchers who participate in PFI-TT projects receive education and leadership training in innovation and entrepreneurship. Successful PFI-TT projects generate technology-driven commercialization outcomes that address societal needs.

II. The Research Partnerships (PFI-RP) track ($550,000) seeks to achieve the same goals as the PFI-TT track by supporting complex, multi-faceted technology development projects that are typically beyond the scope of a single researcher or institution and require a multi-organizational, interdisciplinary, synergistic collaboration. A PFI-RP project requires the creation of partnerships between academic researchers and third-party organizations such as industry, non-academic research organizations, federal laboratories, public or non-profit technology transfer organizations, or other universities. Such partnerships are needed to conduct applied research on a stand-alone larger project toward commercialization and societal impact.

In the absence of such synergistic partnership, the project's likelihood for success would be minimal. The intended outcomes of both PFI-TT and PFI-RP tracks are: a) the commercialization of new intellectual property derived from NSF-funded research outputs; b) the creation of new or broader collaborations with industry (including increased corporate sponsored research); c) the licensing of NSF-funded research outputs to third party corporations or to start-up companies funded by a PFI team; and d) the training of future innovation and entrepreneurship leaders.

Small Business Innovation Research (SBIR/STTR: Up to $1.5M)

The SBIR program is a highly competitive program that encourages domestic small businesses to engage in Federal Research/Research and Development (R/R&D) that has the potential for commercialization.



Entrepreneurship

TRL	R&D Grants	NSF ICORPS	NSF PFI	SBIR / STTR	Friends / Family	MSU VC	Crowd Funding	Angel	VC
9. Actual system proven through successful mission operations.									
8. Actual system completed and qualified through test and demonstration.									
7. System prototype demonstration in an operational environment.									
6. System/subsystem model or prototype demonstration in a relevant environment									
5. Component and/or breadboard validation in relevant environment									
4. Component and/or breadboard validation in laboratory environment									
3. Analytical and experimental critical function and/or characteristic proof of concept									
2. Technology concept and/or application formulated									
1. Basic principles observed and reported									
		$50k	$200-750k	<$100k	$7.5k	<$1M	<$1M	>$10M	

Entrepreneurship

FAQs

Do you have to leave my job at MSU?

No. The Mississippi University Research Act (MURA) is state legislation that provides a legal pathway to manage the conflict of interest that a state employee has working in a private company using state resources. However, faculty must be diligent to manage their time and effort when he or she is working on university vs. company business. See HR policy 60.415 and MURA information here from page 24.

What kind of licensing terms can you expect for your startup?

Compared to many peer institutions, MSU has relatively generous licensing terms for startup companies. Most licenses execute at 3-7% of gross revenue. There are license maintenance fees that must be budgeted by startups as well.

Do inventors still receive royalties if they're part of a startup?

Yes, inventors will receive royalty distributions according to the same rate structure as all other licenses, defined on page 39. In addition, inventors who are equity-holders in the startup company will receive the same profit distributions as any other equity-holder.

Will angel investors or venture capitalists support R&D activities?

In almost all cases, no. Investors care about generating a return. Angel investors typically invest less than $1M and seek opportunities that have potential to yield greater than 10x their investment in 3-5 years. Venture capitalist terms tend to be even more aggressive but will invest up to $5M. Seeking investors is typically not appropriate until nearly all of the core R&D has been done and the company is ready to build a customer-ready product.

What is required to get a license for my startup company?

In order to get a license, you should complete Stages 1, 2, and 3 of the E-Center's VentureCatalyst program and be reviewed by the Investment Review Council. See ecenter.msstate.edu



Marketing

How does OTM market your inventions?

Technology Licensing Associates use many sources and strategies to identify potential licensees and to market inventions. Sometimes existing relationships of the inventors, OTM, 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 a large majority of licensees were already known to the inventors. Thus research and consulting relationships are often a valuable source for licensees. We attempt to broaden these relationships through contacts obtained from personal networking and website inquiries, market research, industry events, and the cultivation of existing licensing relationships.

How long does it take to find a potential licensee?

There are many variables that affect how long it takes to find a potential licensee including, for example, the attractiveness of the invention and the size and stage of the development of the market. Often, especially at universities, the invention is "ahead of its time" and it could therefore be 5 to 10 years until a use or need is identified.

How can you assist in marketing your 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 tech transfer results are obtained when the inventor and the licensing professional work together as a team to market and promote the 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 for a unique field-of-use (application) or



Licenses

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. MSU license agreements usually stipulate that the licensee should diligently seek to bring the MSU intellectual property into commercial use for the public good.

License agreements include financial terms such as fees, royalties, milestone payments and/or equity.

How is a company chosen to be a licensee?

A licensee is chosen based on his/her interest, ability, resources and commitment to commercialize the technology for the benefit of the general public.

What can you expect to gain if your invention is licensed?

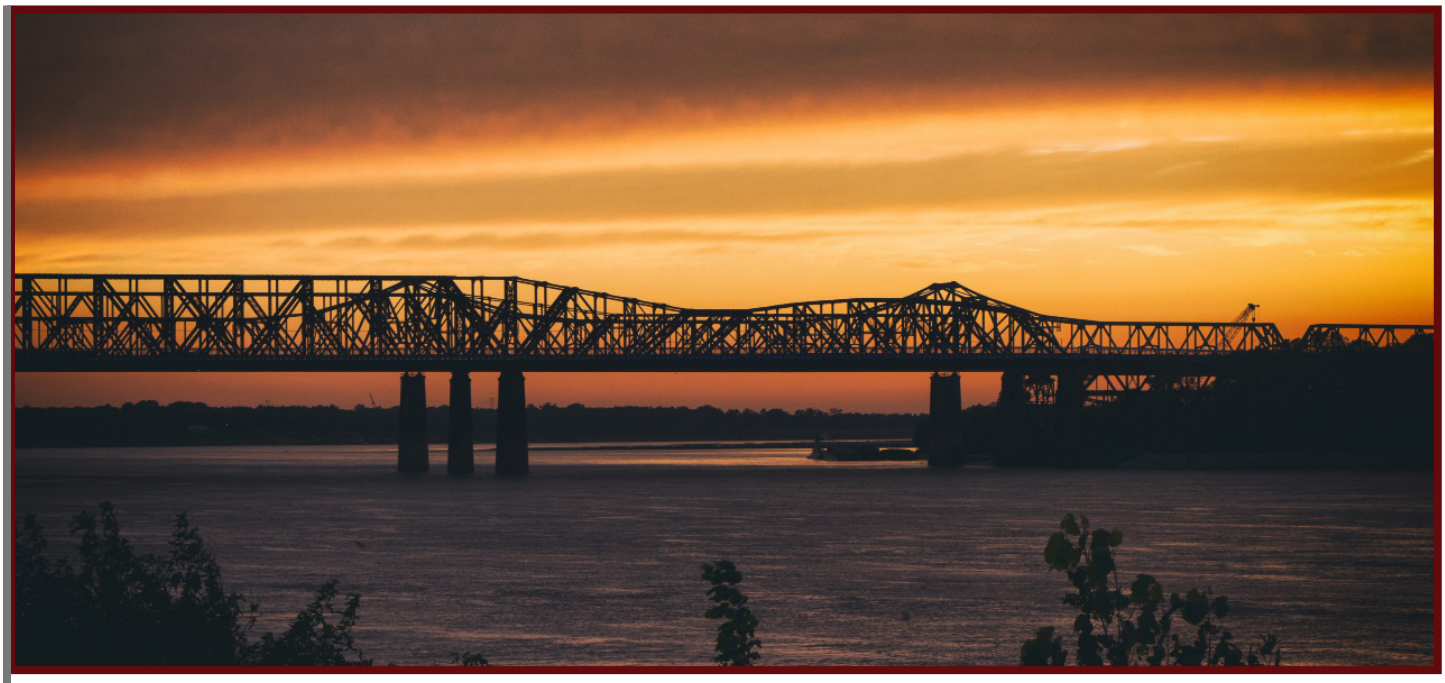
Per MSU policy, a share of any financial return from a license is provided to the inventor(s). For more information please refer to the revenue section on page 39.

In addition, inventors enjoy the satisfaction of knowing their inventions are being deployed for the benefit of the general public, 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 your time will it require?

Many licensees require the active assistance of the inventor to facilitate their commercialization efforts. This can take the form of infrequent informal contacts, consulting relationships, or more formal Sponsored Research Agreements. 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 MSU. Your participation with a start-up is guided by MURA and MSU conflict of interest policies (see MSU Office of Research Compliance, see http://www.orc.msstate.edu/conflict/sops/).





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 MSU researchers need to review in order to conduct research or evaluate research opportunities. OTM enters into NDAs for MSU proprietary information shared with someone outside of the university. The Office of Sponsored Programs (OSP) https://www.osp.msstate.edu/ manages NDAs related to research contracts and potential research relationships.

Material Transfer Agreements (MTAs) are used for outgoing materials are administered by OTM. These agreements describe the terms under which MSU researchers and outside researchers may share materials, typically for research or evaluation purposes. Intellectual property rights can be endangered if materials are exchanged without a proper MTA. MTA's for incoming materials are managed by OSP (https://www.osp.msstate.edu/forms/pdfs/MTA_Form_new.pdf).

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 MSU 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 MSU; 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 Mississippi State University. These agreements are negotiated by the Office of Sponsored Programs.

There are three types of research agreements typically used at MSU: a basic research agreement, an applied research agreement, and a testing agreement. See otm.msstate.edu for more information.

Commercialization

What activities occur during commercialization?

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.

What is your role during commercialization?

Your role can vary depending on your interest and involvement, in the interest of the licensee in utilizing your services for various assignments, and any contractual obligations related to the license or any personal agreements.

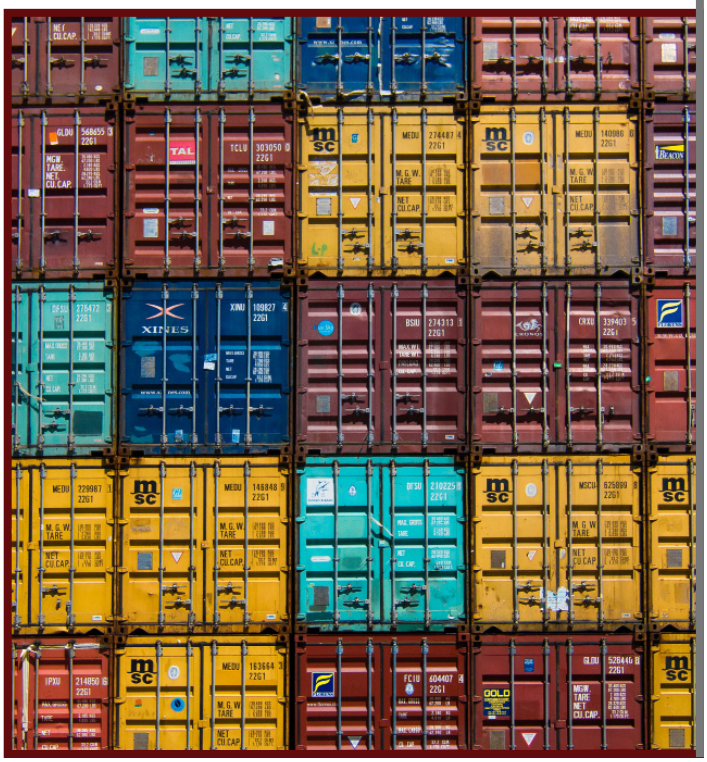
What revenues are generated for Mississippi State if commercialization is successful?

Most licenses have licensing fees that can be very modest (for start-ups or situations in which the value of the license is deemed to warrant a modest license fee) or can reach hundreds of thousands of dollars or more. Royalties on the sales of the licensed products can generate revenues, although this can take years to occur. Equity, if included in a license, can yield similar returns, but only if a successful equity liquidation event (public equity offering or a sale of the company) occurs. Most licenses do not yield substantial revenues.

A recent 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 your invention if the start-up company or licensee is unsuccessful in commercializing the technology? Can the invention be licensed to another entity?

Licenses typically include performance milestones that, if unmet, can result in termination of the license. This allows for subsequent licensing to another company. However, time delays and other considerations can hinder this relicensing.



Conflict of Interest

How does the University define a conflict of interest?

A real or perceived conflict of interest exists when a researcher's Significant Financial Interest(s) could directly and significantly affect the design, conduct, or reporting of University research.

How does the University manage conflict associated with research and tech transfer transactions?

MSU Office of Research Compliance (http://www.orc.msstate.edu/conflict/) staff can advise you on conflict of interest issues. It is the responsibility of each researcher to disclose any outside activities that constitute Significant Financial Interests as described in University Policy OP -01-02.

MURA approval (see page 24) is a mechanism for managing conflicts of interest associated with a researcher's involvement in a start-up company, but MSU's other policies still apply.

What kinds of issues do conflict of interest reviewers take into consideration?

Examples include the appropriate and objective use of research, the protection of human research subjects, the treatment and academic progress of students, and supervision of individuals working at both the university and a related company. Reviewers may also take into consideration issues such as a researcher's ability to influence the university's business, research, or other areas that may lead to direct or indirect financial gain; the possibility of adversely impacting or influencing one's research or teaching responsibilities; or providing improper advantage to a particular company to the disadvantage of others.

When should you seek guidance on conflict of interest?

Whenever a question or uncertainty arises, you should seek guidance from a staff member in the Office of Research Compliance. You can contact the Office of Research Compliance by emailing kstrickland@orc.msstate.edu. Guidance is particularly important when research proposals are submitted to external sponsors in which you also have a financial interest, and when you acquire a new financial interest related to your work at MSU, such as starting a new company or beginning work on commercializing a technology that is related to your research.

What are examples of a conflict of commitment?

A conflict of commitment may exist, for example, if outside activities could adversely affect the university's interests or mission, require an excessive amount of time, interfere with an employee's primary university responsibilities, or compete with coursework or services provided by MSU. Any questions related to it should be discussed with your department head or dean.



Revenue

How are license revenues distributed?

OTM is responsible for managing the expenses and revenues associated with licensing agreements. Per the MSU IP policy, revenues from license fees, royalties and equity—minus any unreimbursed patent expenses—are distributed as follows:

Distribution of income derived from commercialization of MSU owned IP, exclusive of Plant Intellectual Property

Subsquent Income	First $5,000	$5,000-$100,000	Above $100,00
Inventor(s)/Creator(s)	100%	50%	40%
Inventor's(s)/Creator's(s) Cemter, or Unit	0%	25%	30%
Plant Breeding Program	0%	10%	20%
MSU Office of Technology Managment or Research and Technology Corporation	0%	15%	10%

Distribution of income derived from commercialization of MSU owned Patentable Plants and Plant Varieties

Subsquent Income	First $5,000	$5,000-$100,000	Above $100,00
Inventor(s)/Creator(s)	100%	40%	35%
Inventor's(s)/Creator's(s) Cemter, or Unit	0%	25%	30%
Plant Breeding Program	0%	20%	25%
MSU Office of Technology Managment or Research and Technology Corporation	0%	15%	10%

What are the tax implications of any revenues you receive from Mississippi State?

License revenues are typically taxed as Form 1099 income. Consult a tax advisor for specific advice.

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

The "inventor's share" of licensing revenue is distributed among the inventors in proportion to their contributions to the invention. The inventors themselves are responsible for determining these proportions and coming to an agreement. It is not unusual for multiple inventions to be included in a license agreement. With input from the licensee and researchers, OTM weighs the value of each invention licensed.



The Office of Technology Management is committed to bridging the gap between researchers and industry. We're a service organization that strives to effectively serve MSU stakeholders in all that we do, whether it is the quick turnaround of a simple MTA or the negotiation of a multimillion-dollar license agreement. Everything is important. How may we serve you today?

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