

INVENTOR'S HANDBOOK

FROM INVENTION TO COMMERCIALIZATION

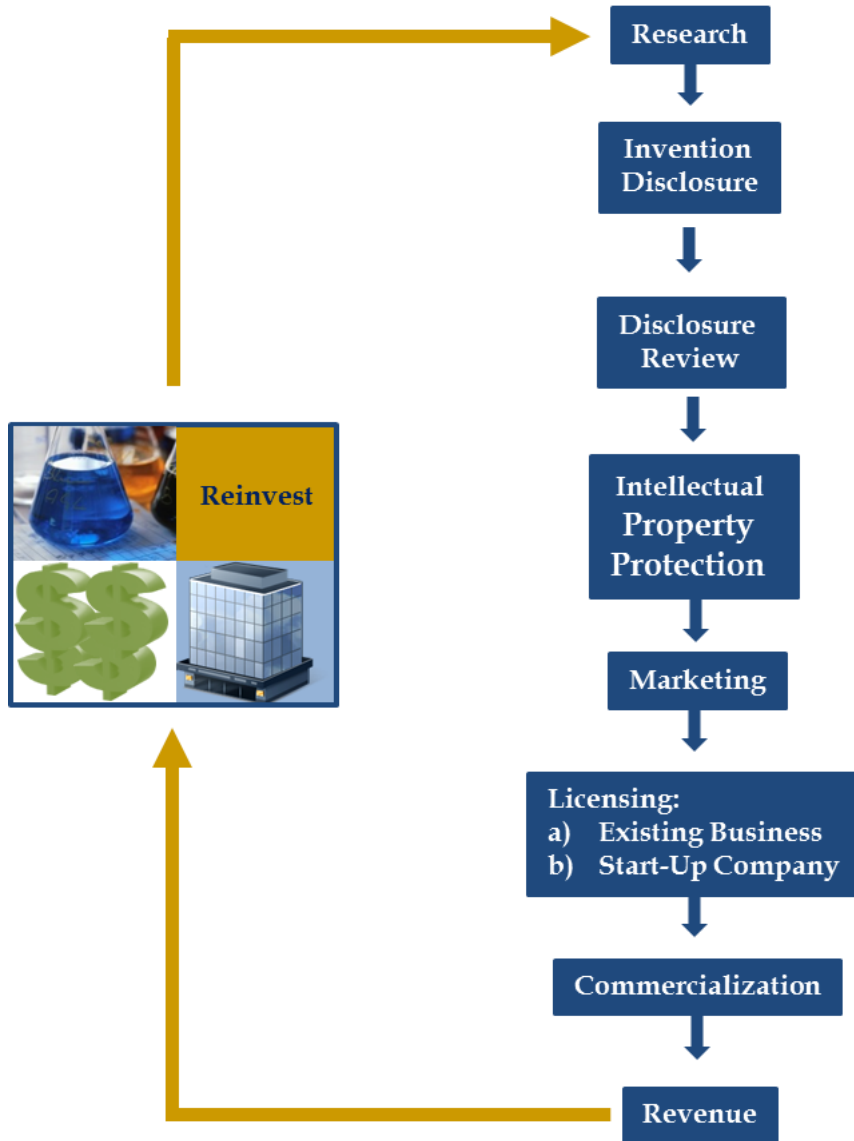


Table of Contents

General Information	3
Disclosure	4
How do I disclose my invention?	4
What are the important considerations for technology disclosure?	4
How do I benefit from disclosing the technology to TMC?	5
When should I disclose?	5
What does e TMC want to know about your disclosure and why is this information relevant?	5
Does my invention belong to the University?	5
Disclosure Review	5
What is the process of disclosure review?	5
What is the timing of the disclosure review?	5
What are the criteria for assessment?	6
What are technical considerations?	6
What are market considerations?	6
What is the intellectual property protectability of the technology?	6
What are the different decisions TMC may make after reviewing a disclosure?	6
What happens if our technology was developed with inventors from other institutions?	6
Intellectual Property Protection	6
Different types of IP protection.....	6
Patents.....	7
Other forms of IP protection	10
Research Tools.....	10
Biological materials.....	10
Marketing	10
Market value of a patent.....	10
Role of the inventors in marketing the invention	10
Licensing	11
What is licensing?	11
What is involved in selecting a commercial partner?	11
I am an FIU inventor and I want to start a company. What do I need?	11
Why create a start-up?	11
What is included in a license?	11
What is the benefit of licensing for the inventor?	11
What is the relationship between the inventor and the company?	11
Commercialization.....	12

What is the expectation of the University regarding commercialization of technology?..... 12

What happens if the license generates revenue? 12

What happens with the University share of the license revenue? 12

Non-Disclosure Agreements (NDA) 12

Material Transfer Agreement (MTA)..... 12

Industrial Sponsored Agreements 12

Patent-Related Terminology..... 13

Resources..... 15

Patents..... 15

Funding 15

Networking 15

Technology Transfer and Licensing 15

Florida International University Inventor's Handbook

General Information

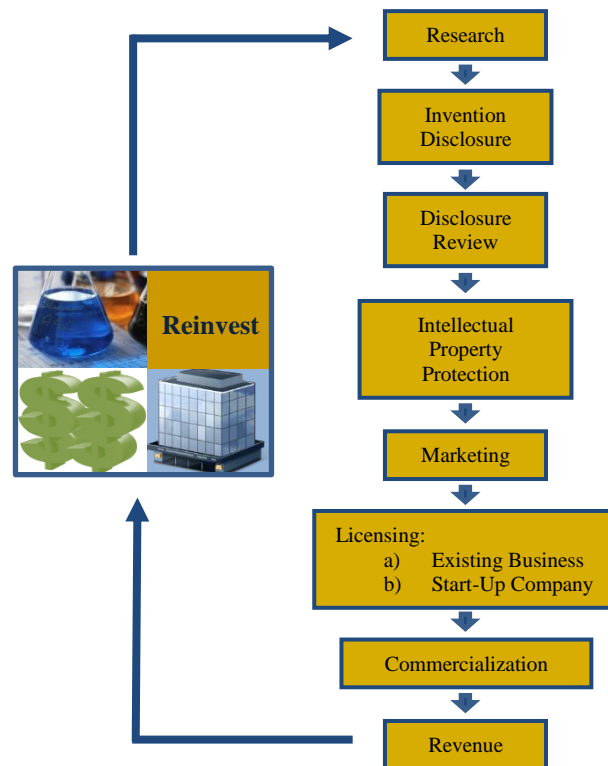
Why is technology transfer important?

Technology transfer is important because it is the process that enables cutting-edge FIU research to benefit society. Commercialization of FIU's technologies also beneficially impacts the FIU community, as a portion of the revenue obtained from commercialization is reinvested in FIU research. For a complete listing of the University's policies, please visit <http://policies.fiu.edu/> and see Policy Number 2390.001 (<https://policies.fiu.edu/policy/549>).

What are the activities of the Technology Management and Commercialization group?

Technology Management and Commercialization (TMC) is part of the Innovation and Economic Development (IED) group under the Office of Research and Economic Development (ORED). The activities of TMC focus on helping FIU contributors in every stage of their research by protecting, and ultimately commercializing, their new technology. This occurs through several steps, including disclosure of new technology by the contributor, assessment by TMC, protecting and marketing the technology to license FIU rights in the technology to existing businesses or start-up companies.

Figure 1—from invention to commercialization



What questions can be addressed by TMC?

TMC's staff is available to discuss a contributor's invention and assist with the disclosure process, including evaluations of the patentability, marketability, and commercialization of a contributor's work. TMC will also assist FIU personnel interested in starting a company based on FIU technology. If you have any questions or

need assistance relating to intellectual property, start-up company creation or collaboration with industry, contact TMC at (305) 348-0008.

What is the FIU Chapter of the NAI?

The National Academy of Inventors (NAI), founded at the University of South Florida, recognizes contributors at universities and not-for-profit research institutes who translate their research findings into inventions that may benefit society. One of NAI's 64 Charter Member Institutions, FIU became a member in 2012. The goals of NAI include recognizing and encouraging inventors who have patents issued from the United States Patent and Trademark Office (USPTO), enhancing the visibility of university technology and academic innovation, encouraging the disclosure of intellectual property, and mentoring innovative students. NAI also creates a sense of community, encouraging faculty to work together and collaborate to create real-world innovations through research. For more information on NAI, please visit <http://www.academyofinventors.org/>.

What is the Bayh-Dole Act?

The Bayh-Dole Act is United States legislation dealing with intellectual property arising from federal government-funded research. Sponsored by senators Birch Bayh of Indiana and Bob Dole of Kansas, the Act was adopted on December 12, 1980, codified in 35 U.S.C. § 200-212, and implemented by 37 C.F.R. 401.

As a result of the Bayh-Dole Act, universities and other non-profit institutions may elect to retain title to inventions developed under federally-funded research and reap the financial benefits of their research. In exchange, universities and other non-profit institutions must comply with certain obligations, including: a) reporting federally funded inventions and election of title; b) protecting inventions they elect to own; c) implementing commercialization efforts to maximize utilization of federally funded inventions giving preference to small businesses concerns; and d) providing the government a non-exclusive license to practice the patent.

Disclosure

How do I disclose my invention?

An intellectual property disclosure form is the first formal step that alerts TMC that a university inventor has made an invention: some apparatus, process, or composition of matter that is useful and distinctly different from anything previously known. In order to disclose an invention to TMC, please go to our website and download the form at <http://research.fiu.edu/technology/pages/disclosure.html> or <http://research.fiu.edu/technology/pages/forms.html>.

A completed hardcopy of the Intellectual Property Disclosure Form with original signature pages should be submitted to:

Technology Management and Commercialization
Office of Research and Economic Development
Florida International University
Modesto Maidique Campus, MARC 440
Miami, FL 33199
Telephone: (305) 348-0008 • Fax: (305) 348-0081

What are the important considerations for technology disclosure?

A technology disclosure is not the same as patent protection. If TMC advises that the technology is viable for patent-eligibility and commercialization, a disclosure to TMC is the first step in the patenting process. Another important consideration is whether there have been publications (e.g., academic paper, poster presentation), public use, and/or previous sales of the technology. It is critical to submit an Intellectual Property (IP) disclosure to TMC before making any public disclosures. Once a technology has been disclosed publicly, there is only a one-year grace period to file a U.S. patent application. Public disclosures prior to patent filing

restricts, or completely prevents, the ability to obtain foreign patents and represents a loss of commercial opportunity in markets outside the US. It is also important to fill out completely the Disclosure Form to the best of the contributor's ability, disclosing all relevant technical information, known prior-art, drawings, and figures. An accurate accounting of all funding obligations, such as grants or sponsorships, is also an integral part of the Disclosure Form. Lastly, an accurate identification of all contributors to the technology is very important. A complete disclosure is essential for accurate technical evaluation of the technology, assessment of its commercial feasibility, and determination of its patentability. Note: Incomplete disclosure forms delay the review process and possible patent filing. It is vital that contributors submit complete disclosure forms to TMC.

How do I benefit from disclosing the technology to TMC?

For many contributors, providing the public-at-large with access to their technology is the most rewarding benefit. Another benefit to the contributor is that TMC will cover patenting expenses and commercialize the technology on behalf of the inventor. If a technology is commercialized, contributors and their respective academic units may receive a portion of licensing revenues as will FIU, which will reinvest the revenue into future research. Lastly, contributors who obtain patents are eligible for membership in the FIU Chapter of The National Academy of Inventors.

When should I disclose?

Contributors should disclose their inventions when they think they have developed commercially viable technologies. Additionally, disclosure should be done prior to, or in parallel with, publication plans. Ample time is needed to prepare a strong patent application.

What does e TMC want to know about your disclosure and why is this information relevant?

To adequately assess the patentability and commercial potential of your technology, TMC needs as much information as possible about your disclosure. The disclosure form is confidential. Areas of interest include a technology description, the history of the technology/discovery, existing or pending publications, sponsorships and funding sources, potential market impact, names of companies that may be interested in the technology, and the names of contributors who worked on the technology. This information informs TMC's assessment of the patentability and commercial potential of your technology in the context of obligations to funding agencies and aids determination of next steps.

Does my invention belong to the University?

As a condition of the University's provision of employment, services, facilities, equipment, or materials to the contributor, the University acquires and retains title to all technologies made within the scope of University employment or research. This also includes technologies created with University Support or made in the field or discipline in which the University employs the contributor. Technologies made with independent efforts may be the property of the contributor. If a contributor is unsure whether a technology is University-owned, he or she should disclose all relevant information to TMC, which will make that determination. For the complete University policy regarding ownership please see Policy Number 2390.001 (<https://policies.fiu.edu/policy/549>.)

Disclosure Review

What is the process of disclosure review?

After TMC receives an IP disclosure form, it will assess the technology. This assessment may encompass an initial prior art search and research in the field of the technology and in marketability. TMC may also ask to meet with the contributor to gain better understanding and acquire more knowledge, about the technology. The process of invention review is done in consultation with the contributor(s).

What is the timing of the disclosure review?

After TMC receives a contributor's disclosure form, an initial review is performed to ensure that the disclosure form is completely filled out. TMC then undertakes a complete review of the disclosure. University Policy

affords TMC 120 days before it must return feedback to the contributor. At the conclusion of the evaluation process, the Vice President for Research and Economic Development (VPR) renders a determination on the disposition of the invention. The VPR or designee informs the inventor of the University's decision regarding the University's interest in the invention and the disposition of the same.

What are the criteria for assessment?

The criteria for assessment span three different areas: Technical, Market Potential, and Intellectual Property Protectability.

What are technical considerations?

Technical considerations include the development stage of the technology (idea, prototype), the investment and time required to bring the technology to market, risk associated with the technology, and the market readiness of the technology. A critical factor is the willingness of the inventor to help develop the technology and market the invention.

What are market considerations?

Market considerations include the need for the technology, if there are different alternatives that already exist that address the need for the technology, the size of the market, the difficulty of entering the market, regulatory considerations, whether the market is growing, ability to license technology in the market, and how the technology compares to the competition.

What is the intellectual property protectability of the technology?

To qualify for a patent, the technology must fall under one of the following categories: process, apparatus, manufacture, composition of matter, and any new and useful improvement to a technology in the above listed categories. A patent also must have utility, be novel, and be non-obvious in view of the prior art. Another consideration is the ability to enforce the patent once issued. Finally, if patent protection is not available for the technology, other intellectual property vehicles must be available to protect the technology.

What are the different decisions TMC may make after reviewing a disclosure?

TMC may decide that it will not pursue the contributor's technology. Conversely, if TMC thinks the technology may be commercially viable and is patentable, the patenting process will begin. This is a lengthy process that can be very expensive. TMC will pay for the patenting expenses and will work to commercialize the technology, either through licensing the technology to existing businesses or through the creation of a new start-up company.

If TMC decides that it will not pursue a contributor's technology, the University will release the technology. If the research that led to the technology was funded by a government agency, the rights to the technology will go to the agency. If contributors wish to have the technology reassigned to them, they need to receive prior approval from relevant government funding agencies.

What happens if our technology was developed with inventors from other institutions?

If the technology has been developed with inventors from other institutions, the ownership rights to the invention belong equally to the respective institutions. If it is decided to move forward, one of the institutions will take the lead in managing all aspects of patent protection and commercialization of the invention on behalf of both institutions. The rights and obligations of the joint owners are codified in an Inter-Institutional Agreement negotiated by TMC with the other institution.

Intellectual Property Protection

Different types of IP protection

There are four major types of intellectual property protection:

- Patent – this protection is for inventions.
- Copyright –protects the author's rights over literary, musical, software and artistic works.

- Trademark – protects the owner’s right to conduct business under a certain name or logo.
- Trade secret – keeps commercially valuable secrets from being unlawfully exploited by others.

Patents

What is a patent?

In exchange for filing a patent application and disclosing an invention, the government may issue a patent to the inventor. A patent is a legal document that gives the patent holder the right to exclude others from making, using, selling, and importing any patented invention. A patent does not, however, provide the patent holder with any legal right to practice a technology. A patent has a limited life span, and the patent claims within the patent define the scope of what is protectable.

What can be patented?

Patentable materials (subject matter) include machines, processes, compositions of matter, some computer programs, and various types of methods. Discoveries, ideas, laws of nature, and naturally occurring substances cannot be patented.

What are the types of patents?

There are three types of patents: utility, design, and plant patents. Utility patents are the most common, protecting functional inventions such as systems, processes, compositions of matter, and methods. Design patents protect ornamental designs that are not functional. Plant patents protect new variations of plants that have been bred or biologically engineered.

What are the criteria for patentability?

In order to be patented, an invention needs to be novel, useful, and non-obvious. To be novel, an invention cannot have been used or sold by the public. To be useful, the invention must have some improvement or useful quality that justifies it as a technological advancement in view of the prior art. To determine whether the invention is non-obvious, one asks: Would the invention be obvious to a person having ordinary skill in the art at the time of filing of the patent application?

How long does a patent last?

Utility patents and plant patents last 20 years from the dates first filed. Design patents last 14 years from the dates first filed.

What are the components of a patent application?

A patent application is composed of several parts: a title, abstract, specification, drawings, and patent claims. The title and abstract give a broad sense of what the invention involves and the technological field in which the invention resides. The specification and drawings explain in detail how the invention works, the manner of using the invention, how the invention is an improvement over existing technology, experimental data, etc. The patent claims are the most important part of the patent application. Like a fence to a property, these claims establish a boundary between what is protected by the patent and what is not.

Who is an inventor in a patent?

The title of “inventor” is a legal status and is strictly confined to individuals who participated in the conception of the invention. Determination of inventorship is established by the patent counsel based on the contribution of the creators to the invention. Identification of the relevant inventors is critical, as incorrect inventorship may invalidate the patent. As such, individuals who constructed or tested the invention are not considered inventors unless they contributed to conceiving at least a part of the claimed invention.

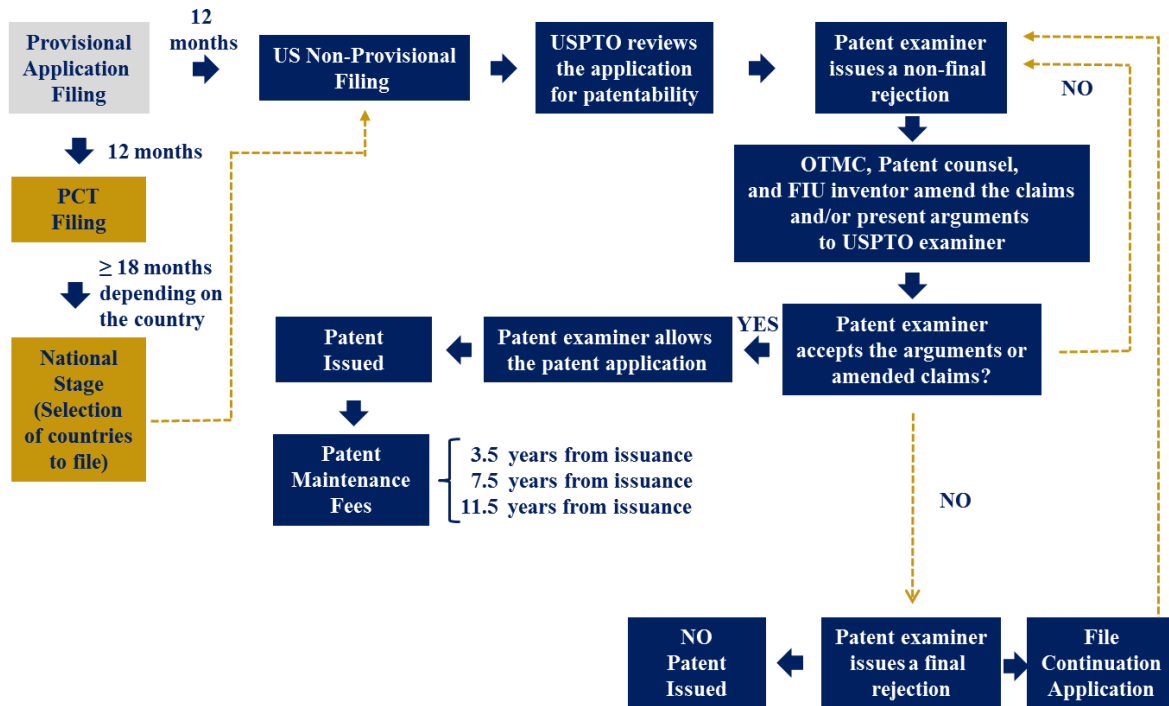
What does the patent process look like?

A patent application is prepared by an FIU-designated patent attorney and filed with the patent office. The patent process is generally a sequence of written communications between the patent office and the inventor(s) until such time a patent is issued or fully rejected. After the patent application is examined, the patent office

provides a written communication (office action) as to whether the claims are accepted in the form that was filed. Frequently, the claims are rejected, which requires preparing a response to the office action that amends claims or provides an argument supporting the original claims. Issuance of the patent may take several cycles of office actions and responses until the claims are acceptable in form and scope to the patent office.

Figure 2—Patent Process

Typical Patent Prosecution Process



How long does it take to get a patent?

The process to attain a patent usually takes between two to five years, depending on factors such as the technological field of the invention, the number of reiterations and time taken to respond to USPTO communications, and the complexity of the invention.

What are the costs associated with patent protection?

There are numerous costs incurred in the attainment and maintenance of patent protection, including attorney and patent office fees. In the U.S., the total cost of the application process, from application filing to patent issuance, usually exceeds \$15,000, depending largely on the number of drawings, number of patent claims, and fees for actions that arise during the examination process. After a patent is granted in the U.S., fees must be paid at 3.5, 7.5 and 11.5 years from the patent issuance in order to maintain the patent rights. The fees for filing patents outside of the U.S. (foreign filings) vary by country: in addition to the costs associated with the preparation, filing and prosecution of the patent, there are translation fees. Foreign countries also typically levy a periodic tax on patents.

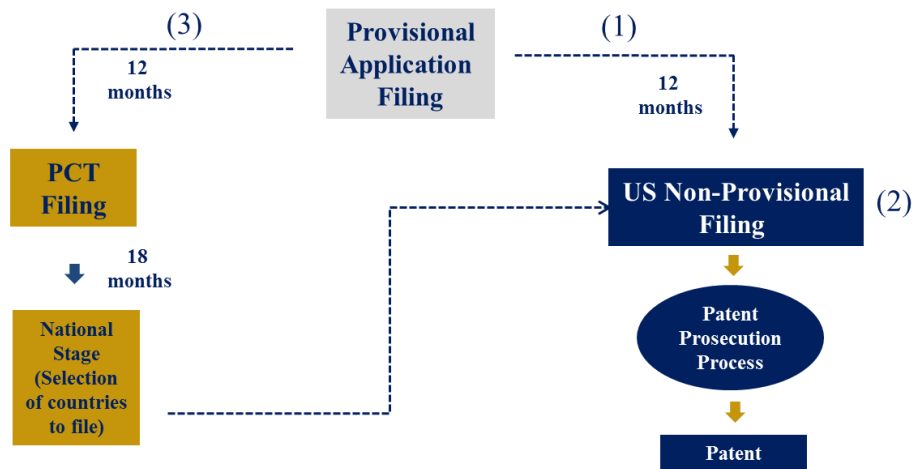
What is the meaning of the terms Provisional, PCT, Regional Patent Applications, U.S. non-provisional, and national phase entry?

These terms represent different forms of patent applications for different needs. Provisional applications act as placeholders for priority dates of invention and are not examined by the patent office. PCT (Patent

Cooperation Treaty) and regional patent applications are mechanisms that enable obtaining patents in various countries with a single application that does not require translation. Other applications, such as the U.S. non-provisional application and national phase entry, apply only to domestic patents in the country of filing.

Figure 3—Non-Provisional Patent Approaches

Three Approaches to File a Non-Provisional Patent Application in the US



A US Non-Provisional can be filed by:

- (1) Conversion of a Provisional Application into a US Non-Provisional Filing
- (2) Filing a US Non-Provisional Filing directly
- (3) National Stage entry in the US via PCT

What is the inventor's role in the patent prosecution process?

The inventor has a crucial role throughout the patent prosecution process. Due to the inventor's specific expertise in the technological field, the inventor is regularly consulted for understanding of his or her invention and for receiving advice in distinguishing the inventor's invention from other inventions in the same technological field.

Does publishing, thesis defense, or discussing my technology in public interfere with patenting?

Public disclosure may render an invention as no longer novel and therefore not patentable. Common examples of public disclosure include publications, electronic publications of articles, thesis and conference abstracts, seminar presentations, poster sessions, and any presentation that is open to the public. In the U.S., displaying your product at a trade show may count as an offer for sale, which also bars patentability. To avoid losing patenting rights, a patent application should be filed ahead of any public disclosure or offer for sale. It is crucial that the inventor notify TMC prior to any planned disclosures or publications. With enough notification time, TMC can file a patent in parallel with the inventor's publications plans.

Is the patent readily available for everyone to see?

The normal patent application is published 18 months after its filing date. Issued patents are published and available to the public. The only exception to this rule is if a secrecy order has been issued upon the invention. Secrecy orders are issued only in exceptional circumstances, and usually apply to inventions that are of interest to national security. U.S. published patent applications and U.S. issued patents can be searched at

<http://www.uspto.gov/>

Does TMC patent protect a technology in the absence of a licensee?

If the assessment of a technology indicates that the invention has commercial potential, FIU will invest in patent filing in the absence of a licensee. FIU may decide to stop prosecution of such patent if the commercial potential of such invention is not realized.

Other forms of IP protection

Copyright

Copyright protects original works of authorship, including literary, dramatic, musical, and artistic works, such as poetry, novels, movies, songs, computer software, and architecture. Protection is automatically granted with the creation and fixation of the work in “a tangible medium of expression” (e.g., writing down a story in a piece of paper, storing a computer program in a storage medium, etc.). Copyrights do not protect facts, ideas, systems, or methods of operation, although they may protect the way these things are expressed.

Trademarks

Trademarks protect words, phrases, symbols, logos, or designs identifying the source of the goods or services of one party and distinguishing them from those of others. For example, Wal-Mart, Microsoft, and Shell are all trademarks.

Trade Secrets

Trade secrets are a formula, practice, process, design, instrument, pattern, or compilation of information that is not generally known or reasonably ascertainable, by which a business can obtain an economic advantage over competitors. An example is the formula for Coca-Cola.

When seeking intellectual property protection for your idea, consider whether the invention or some of its elements can be protected using multiple forms of intellectual property protection.

Research Tools

Biological materials

During the course of research, investigators develop tangible research materials that allow testing of hypotheses in their systems of interest. These research materials include in vivo models, cell lines, plasmid, vectors, antibodies and other useful research tools. These tools may be valuable to research reagent companies, biotech or pharmaceutical companies conducting drug discovery. Companies may license these tools as non-patented research materials to contribute to their product development process. If you have research tools that you believe to be valuable, disclose those to TMC. Collectively, we will develop the appropriate strategy for protection, licensing, and distribution of the research tools.

Marketing

Market value of a patent

Protecting an invention with patents is a means to an end. The goal for TMC is to commercialize FIU technologies to bring products to market to benefit society. Rights to patents provide a company with a valuable competitive advantage or a temporary exclusivity in the marketplace to develop products or establish new markets.

Role of the inventors in marketing the invention

Inventors are essential in the successful commercialization of technology. Studies show that many licensing transactions are initiated based on the inventors' contacts. Inventors can help to identify companies and relevant industrial sectors potentially interested in commercializing the technology. The more engaged an inventor is in securing interest from companies, the more likely the intellectual property will be licensed.

Inventors active in the development process facilitate the invention coming to market by addressing technical issues that arise.

Licensing

What is licensing?

Licensing involves the negotiation and execution of a license agreement to grant a licensee certain rights on intellectual property, protecting a technology in exchange for consideration. The licensee may be an established company or a start-up company. The license may be exclusive (one licensee) or non-exclusive (multiple licensees). The license agreement will describe the rights and obligations of the licensee in developing the technology.

What is involved in selecting a commercial partner?

It is important to research the specific industry and markets that relate to a protected technology to understand the target market in which the invention would sell and the companies that have the technological capabilities and distribution channels to fully exploit the invention. Start-up opportunities are best suited when there is a strong start-up team with a compelling market strategy to drive the intellectual property position, high potential to create substantial return, and the technology meets an unmet need. Start-ups require the active participation of the inventor to continue to develop the technology.

I am an FIU inventor and I want to start a company. What do I need?

FIU encourages inventors to participate in starting new businesses by serving as technical advisors to the company. If you are considering starting a new business based on technology created at FIU, contact TMC for guidance pertaining to management, capital, intellectual property, business plans, access to facilities, and other start-up issues. TMC will also link you to a network of entrepreneurs and business professionals that can help build your company. FIU inventors that want to participate in start-up activities must do a Conflict of Interest (COI) review. For more information on COI visit <http://research.fiu.edu/coi/>.

Why create a start-up?

A start-up company can be an alternative to commercialize an early stage, unproven technology. Many elements are considered when deciding to create a start-up, including: a) an entrepreneur with a proven track record willing to be the champion for the new company; b) commitment and availability of the inventor to drive the technology development to the marketplace; c) intellectual property that provides a competitive advantage in significantly large market(s); d) a management team with a track record of success and expertise in the target market(s), and e) availability of investor capital for the venture.

What is included in a license?

A license consists of a written agreement between a company and FIU that describes each party's rights and responsibilities. It includes the rights granted to the licensee as well as the financial obligations that the licensee will undertake for bringing the technology to market. The financial terms of a license include different types of payments such as upfront fees, royalties, annual maintenance fees, milestones payments, equity payments, among others.

What is the benefit of licensing for the inventor?

The main benefit to the inventor is that licensing facilitates the translation of the inventor's research into products and services in the marketplace. In accordance with FIU policies, FIU inventors can benefit personally by sharing in the net revenue from the invention once FIU has recovered the associated costs of commercialization. Licensing may attract industrial research funding to the inventors lab and create industrial partnerships that provide relevant industrial research experiences and future potential employment to students.

What is the relationship between the inventor and the company?

In cases when the technology is licensed to an existing company, the inventor may be asked to be a consultant to develop the technology or to conduct research at FIU to develop further the technology at the company's

expense. These relationships are the subject of consultant agreements or industry-sponsored research agreements, respectively. In cases when the technology is licensed to a start-up company, the inventor may act as the technical consultant to the new venture and be required to be involved in investor discussions and to assist the company in research endeavors to move the technology to the marketplace.

Commercialization

What is the expectation of the University regarding commercialization of technology?

FIU is deeply committed to state-of-the-art innovation and discovery. Through technology transfer, the University is building and strengthening a culture of innovation and entrepreneurship. FIU technologies implemented in the marketplace improve the competitiveness of our local, national and global economies, generating jobs and bringing products to market. The revenue that may be generated by commercialization of FIU technologies is reinvested in the University's research enterprise, advancing FIU's mission.

What happens if the license generates revenue?

In accordance with FIU policies, license-generated revenue is shared with the inventor(s) after FIU has recovered the invention costs. For more information regarding FIU's distribution policy, please see Policy Number 2390.001 (<https://policies.fiu.edu/policy/549>.)

What happens with the University share of the license revenue?

In accordance with FIU policies, the University share of the net revenue is reinvested in research to continue to foster and broaden research and innovation at FIU.

Non-Disclosure Agreements (NDA)

A Non-Disclosure Agreement (NDA) is a legal contract between at least two parties outlining the rights and obligations for the use of confidential information the parties wish to share with one another for a specific purpose. Parties involved in NDAs agree to not divulge protected information during business transactions with third parties. NDAs are important because they protect the confidentiality of nonpublic technical and business information. At FIU, ORED's Pre-Award unit reviews and executes NDAs that relate to the exchange of information to determine whether the parties may be able to pursue a future research project or collaboration. TMC reviews and executes NDAs that relate to the exchange of confidential information and/or intellectual property for licensing purposes. To initiate the NDA review, the investigator should submit the agreement along with the agreement request form.

The form can be found at <http://research.fiu.edu/forms/index.html>

Material Transfer Agreement (MTA)

A Material Transfer Agreement (MTA) is a contract governing the transfer of tangible proprietary research materials between two parties. The MTA defines the obligations, rights, and restrictions that the provider request of the recipient with respect to the use of the materials and any derivatives. The most common types of agreements in academic institutions are transfer between academic or research institutions, transfer from academia to industry, and transfer from industry to academia. Each requires varying terms and conditions. At FIU, MTAs are reviewed by ORED's Pre-Award unit. To initiate the MTA review, the investigator should submit the agreement along with the agreement request form. The form can be found at

<http://research.fiu.edu/forms/index.html>

Industrial Sponsored Agreements

Industrial Sponsored Agreements allow companies to provide support for research being conducted by the university for the company. These agreements describe the rights and obligation of the parties for a specific scope of research to be conducted. Review of these agreements protects the intellectual property and publication rights of the FIU investigators in addition to ensuring that the sponsored project does not interfere with FIU research. The investigator should submit a proposal, budget and budget narrative via the Electronic Proposal Routing Approval Form (ePRAF) for review and approval. Once the proposal is approved, ORED's Pre-Award unit will work with TMC and other units to review the agreement.

Patent-Related Terminology

- a. 102 Rejection: This rejection is based on the novelty requirement of an invention. By issuing this form of rejection, it is the examiner's position that the invention disclosed in the application is not novel because it has been anticipated by prior art or other patents; the invention was publicly disclosed by the inventor over a year prior to the filing date of the application; the invention had been abandoned, and/or the invention was filed in another country over a year prior to filing of the U.S. application.
- b. 103 Rejection: This rejection is based on the non-obviousness requirement of an invention. By issuing this form of rejection, the examiner believes that although the invention is not completely described in any one prior art reference, the invention is obvious in light of one or more prior art references.
- c. Assignee: The assignee is an individual or legal entity (company, university, etc.) that has an ownership interest over the patent or patent application. The assignee receives this ownership interest through an assignment from the inventor(s).
- d. Assignment: The legal action of transferring property ownership rights to another.
- e. Bar Date: A bar date is a date that acts as a deadline for filing a patent application. Bar dates are most commonly triggered by events such as public disclosures and publications. Failure to file a patent application by the bar date may result in the prevention of receiving a patent for an invention.
- f. Classification: The classification of a patent application depends on the technological area in which the invention resides. Ultimately, an application's classification determines the technological division within the USPTO to which the application will be sent and the patent examiner.
- g. Declaration: A declaration is required statement with a warning indicating that willfully false statements are punishable by law. A declaration must certify that the inventors are the first inventors of the subject matter, the inventors understand the contents of the application, and that the inventors have a duty to disclose all information to them that is relevant to the patentability of the invention.
- h. Freedom to Operate (FTO): Freedom to operate, sometimes abbreviated "FTO," refers to whether a certain action, such as testing or commercializing a product, can be done without infringing patent rights or other intellectual property rights of others.
- i. Government Rights: These are rights granted by the government, such as the right to exclude others from selling, importing or using a patented invention in the case of patents. In terms of trademarks and copyrights, government rights include the right to exclude others from using a certain commercial name or logo, or the right to exclude others from copying an audiovisual or literary work.
- j. Information Disclosure Statement (IDS): A document that may be required by the USPTO from the inventor and/or applicant for aiding the examiner's search for prior art references.
- k. Maintenance Fee: Maintenance fees are required to be paid three times throughout the full life of a utility patent, but are not required for design or plant patents. These fees, in the case of a U.S. patent, are due at 3 ½ years, 7 ½ years, and 11 ½ years after the patent had been granted.
- l. Non-Provisional Patent Application: Unlike a provisional application, this patent application undergoes examination by a USPTO examiner and may result in an issued patent. A non-provisional application may claim the benefit of an earlier filing date from a provisional patent application or another non-provisional patent application.
- m. Office Action: An Office Action is a communication from the USPTO. There is always a deadline to reply to these communications, and this deadline must be met in order to continue with the patent prosecution process.
- n. Prior Art: Documentation of technology that is similar or material to the technology in the invention described in the patent application. Prior art can consist of U.S. patents, journal articles, foreign patents, publications, or any other piece of literature that is publicly available.

- o. **Provisional Patent Application:** This patent application is not examined and does not result in a patent, but rather reserves the effective filing date for a later non-provisional patent application with respect to that which was disclosed in the provisional application. Provisional patent applications have a life of one year before they expire; therefore, the subsequent non-provisional patent application should be filed within this one-year period.
- p. **Patent Cooperation Treaty (PCT):** Patent Cooperation Treaty – a multinational treaty enacted to economize and facilitate the process of obtaining patents in multiple countries. This treaty brought forth the PCT application, which allows an inventor to apply internationally and designate various target countries as locations to obtain patents. The inventor can then pursue the patent process in each individual country while retaining the filing date of the international application.
- q. **United States Patent and Trademark Office (USPTO):** The governmental office that handles the patent and trademark applications and has the administrative power to grant or deny patents and trademarks.
- r. **Public Disclosure:** The public disclosure of an invention can forever bar the inventor from receiving a patent on that invention. If an inventor publicly discloses an invention, he or she has one year to file a patent application or the inventor will be barred from receiving U.S. patent rights on the disclosed invention. An inventor's public disclosure also bars the inventor from receiving patent rights in most other countries unless the inventor had filed a patent application in that country prior to the disclosure. A public disclosure may be journal publications, scholarly article publications, website blogs, presentations, displays such as poster presentations, etc.
- s. **Reduction to Practice:** Reduction to practice is an action towards the realization of a patent; it can be either actual or constructive. Actual reduction to practice consists of building the invention, testing the invention, etc. Constructive reduction to practice can be the filing of a patent application.
- t. **Restriction Requirement:** If the examiner finds that a patent application has claims that describe two independent or distinct inventions, the examiner may issue a restriction requirement. A restriction requires the applicant to elect one of the two or more inventions to continue with the patent process. The non-elected invention(s) can be pursued in a separate patent application(s).
- u. **Specification:** The specification is the part of a patent that has a written description of the invention, with an explanation as to how to make and use it.

Resources

Patents

United States Patent and Trademark Office
<http://www.uspto.gov/>

Google Patents:
www.google.com/patents

National Academy of Inventors (NAI)
<http://academyofinventors.org/>

European Patent Office
<http://www.epo.org/>

World Intellectual Property Organization (WIPO)
<http://www.wipo.int/portal/index.html.en>

Funding

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs
<http://www.sbir.gov/>

Southeast BIO (SEBIO)
<http://sebio.org/>

Enterprise Florida
<http://www.eflorida.com>

National Venture Capital Association (NVCA)
<http://www.nvca.org/>

The Florida Institute for the Commercialization of Public Research
<http://www.florida-institute.com/>

Florida Venture Forum
<http://www.floridaventureforum.org/>

New Worlds Angels
<http://www.newworldangels.com/wp/>

Networking

BioFlorida
www.bioflorida.com

SEMDA
<http://www.semda.net/>

Enterprise Forum South Florida
<http://mitforumfl.org/>

Technology Transfer and Licensing

Association of University Technology Managers (AUTM)
<http://www.autm.net/>

Licensing Executives Society
<http://www.lesusacanada.org/home>