



UWM Research Foundation Intellectual Property Management Process

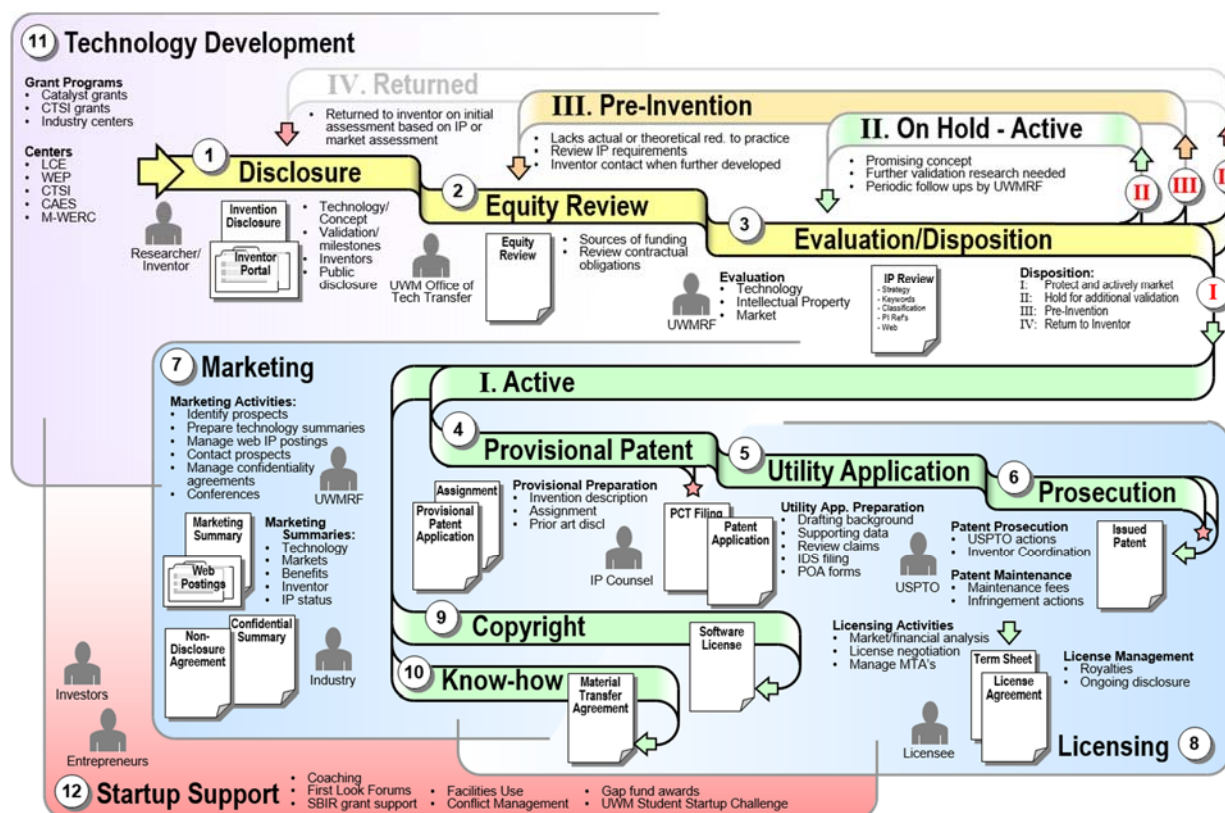
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Process Overview

The UWM Research Foundation (UWMRF), as the designated intellectual property management organization of the University of Wisconsin-Milwaukee (UWM), employs a structured process for the management of intellectual property related to discoveries, copyrightable works, and inventions, made or developed at UWM by UWM faculty, staff, students and employees. The objective of this structured management process is to obtain appropriate statutory protection (e.g. *patent*, *copyright*, etc.) and to rapidly move the most promising of these copyrightable works or inventions to the commercial marketplace, either alone or with a commercial partner or licensee. It is hoped that through this process, work and inventions will achieve the broadest possible distribution in the marketplace for the benefit of consumers and society at large, as well as return to UWM certain revenue, in the form of royalties, to support ongoing research and innovation.

The process is designed to identify discoveries, copyrightable works, and inventions with the highest potential for success in the marketplace and allow the UWM Research Foundation to work in partnership with the inventor to ensure the greatest chance for success.



Intellectual Property Management Process

The following sections describe each step in UWMRF's intellectual property management process. Many aspects of the process relate directly to patent law. Terms typically associated with patent law are shown in *italics*.

The patent process described here pertains primarily to filing in the United States through the United States Patent and Trademark Office (USPTO). The process will vary slightly in the case where UWMRF seeks protection outside the United States which is typically done by filing a Patent Cooperation Treaty (PCT) application.



The copyright process described here pertains to the United States Copyright Law for works that are registered through the U.S. Copyright Office. In general, works that are copyrighted in the U.S. are honored by most countries in the world due to the relationships that the U.S. has developed with other nations.

1.0 Invention Disclosure

The formal process starts with the submission of an Invention Disclosure Form (referred to herein as 'Invention Disclosure' or 'Disclosure'). This can be done on-line through UWMRF's Inventor Portal (<http://uwmresearchfoundation.org/Inventor-Portal.aspx>). The Invention Disclosure contains important information used by UWM's Office of Technology Transfer and the UWM Research Foundation to evaluate the work or invention. In particular, the Disclosure includes:

- **Description of the Invention/Work** – This includes a high level description of the copyrightable work or invention as well as any detailed information, such as manuscripts that help further describe the innovation. This will allow the UWM Research Foundation to begin to identify markets and assess intellectual property.
- **Sources of Funding** – This information is used by UWM's Office of Technology Transfer during the equity review process.
- **Public Disclosure** – Public disclosures, including journal publications, conference presentations or meetings with representatives of an outside entity can limit the ability to pursue patent protection. A complete description of previous or upcoming disclosures is important to assessing the options and timelines for potentially pursuing patent protection.
- **Inventors** – *Inventorship* is defined by U.S. patent law. It is important to include the names of all individuals who provided an *inventive contribution* to the concept, whether they are based at UWM or another institution. In the United States, a patent application may be filed in the name of one or several inventors. All possible inventors must be listed in the Invention Disclosure, but the final list must be determined by a patent attorney or agent. The criteria for listing someone as an inventor are different from those that determine authorship on a scientific paper: demonstrating technical skill, performing arduous experiments, and being the head of the lab do not meet the standard for inclusion. The most important criteria for inclusion are creativity in designing the invention and discovering how to use it.
- **Authors** – If you are submitting a copyrighted work or creative work, the creator(s) of the original work is/are the author(s). The author(s) is/are the owner(s) unless they have assigned the work to another entity by written agreement. In some situations a person is considered to be a "work for hire" rather than an author if the employer or a commissioning party is considered to be the author.

A complete Disclosure is required to continue with the process. If the Disclosure is not complete, the inventor will be contacted by UWM's Office of Technology Transfer or the UWM Research Foundation to request further information before the process can continue. In addition to conveying important details of the work or invention, the Invention Disclosure Form also becomes a piece of evidence substantiating the date of the invention. As of March 16, 2013, the United States is a first to file country where the first inventor(s) to file receives priority when applying for a patent. The new law under the America Invents Act maintains a one-year grace period similar to the one-year grace period under the previous first to invent law. There are still instances in which the inventor will need to have the date of the invention well documented in the case that it is believed that another inventor may have derived their invention from the other.

Researchers are encouraged to submit an Invention Disclosure early in the discovery process. In some cases, it may be determined that an "*invention*," as legally defined, has not yet occurred. An *invention* requires both the *conception* of an idea and *reduction to practice* (either *actual* or *constructive reduction to practice*).



What do I need to do as an inventor?

The following are suggestions for optimizing your role in the patenting process.

Prompt filing of an Invention Disclosure before any Publication

Because publication of a discovery or invention in most any form, or more generally any public disclosure of an invention, creates a potential bar to patentability, you should file an Invention Disclosure Form that notifies UWMRF of any past publications along with any impending publication. The Invention Disclosure Form should be filed well in advance so that the University and UWMRF have plenty of time to review it before any potential publication of the invention.

If publication occurs before the Invention Disclosure Form is filed, patent rights are not necessarily sacrificed. For instance, a published abstract may not affect the patentability of an invention as it may not disclose enabling details of the invention. Even the publication of an entire manuscript may not preclude all patent rights. That said, however, it is best to avoid the problem because any publication is likely to have some impact on UWMRF's decision whether or not to file a patent application, the scope of the potential patent *claims*, the countries in which patent protection is available, and/or the duration and expense of obtaining a patent. This does not mean the schedule for publication should be changed, but merely that an Invention Disclosure Form should be submitted sufficiently in advance of any publication of any details of the invention to permit enough time for UWMRF's review of the invention and the publication and, when necessary, for preparing a patent application.

Publications

The simplest example of a publication is a manuscript published in a journal or book. The following examples also constitute or, depending on other factors, may constitute publication of the invention potentially impacting patentability of the invention:

- Online publication of a manuscript
- Abstracts distributed in advance of or at a meeting
- Abstracts published online
- Patents
- Published patent applications
- Theses
- Presentation at a department meeting
- Exhibiting a prototype of your invention
- Presenting or displaying a poster
- A discussion of the invention is a colleague or neighbor
- Thesis presentations
- Funded grant applications
- Nucleotide or peptide sequences in a public database
- Class handouts
- Recordings of oral presentations

Further, *offers to sell* your invention and public use of your invention can create bars to patentability. In order to preserve all patent rights it is important for inventors notify UWMRF of any past or anticipated potential publications of your invention of which you are aware.

UWMRF Responsibilities	Inventor Responsibilities
✓ Review Disclosure for completeness	✓ Fill out the Disclosure form as thoroughly as possible
✓ Meet with the Inventor, if needed, to complete or clarify the Disclosure	✓ Be willing to meet with UWMRF to complete the Disclosure and during evaluation of the Disclosure
✓ Proceed with evaluation of the Disclosure	✓ Submit a Disclosure to UWMRF before a public disclosure



What do I need to do as an author of a copyright work?

The following are suggestions for optimizing your role in the copyrighting process.

Proper marking of your copyright work upon creation

Be sure to place a copyright notice on an original work. The notice consists of the symbol or word “copyright,” the year of the first publication, and the name of the owner. For instance, ©2012 John Doe. While the use of the copyright notice is optional, it helps to inform others of your intent to protect your work.

File an Invention Disclosure

Similar to a potential patentable invention, it is ideal to inform the UWMRF early so that we can be sure to provide the support that you need early in the process.

UWMRF Responsibilities	Author Responsibilities
✓ Review Disclosure for completeness	✓ Mark your creation with a copyright notice
✓ Meet with the Author, if needed, to complete or clarify the Disclosure	✓ Fill out the Disclosure form as thoroughly as possible
✓ Proceed with evaluation of the Disclosure	✓ Be willing to meet with UWMRF to complete the Disclosure and during evaluation of the Disclosure

2.0 Equity Review

All Invention Disclosures are reviewed by the UWM Office of Technology Transfer to determine if any funding agency may have rights to a potential *invention*, a process known as equity review. The outcome of the equity review will be reported to appropriate federal sponsors in the case the invention was made through the use of federal funds. The University is required by law to give rights to use the invention to federal sponsors. In some instances a corporate research sponsor may have been granted certain rights to intellectual property developed under corporate sponsored research contracts. Additionally other grants providing research support may require a grant of intellectual property rights to the funding organization.

The Office of Technology Transfer will provide a letter to the inventor informing them of the results of the equity review. In the case where a sponsoring agency has rights to the invention and/or its related intellectual property, the UWM Research Foundation, as UWM’s designated intellectual property management organization, is responsible for managing the invention and its associated intellectual property. The *inventor(s)* are required by UWM policy to assign the matter to the UWMRF. If the invention or copyrightable work and associated Intellectual property rights are not encumbered by any other rights of any other party, the inventor/author has the right to dispose of the invention or work in a manner of their own choosing. The UWM Research Foundation can support the management of these inventions and recommends that inventors/authors consult with UWMRF about this option.

Following the completion of the equity review, the UWM Research Foundation will conduct an evaluation of the invention or work.

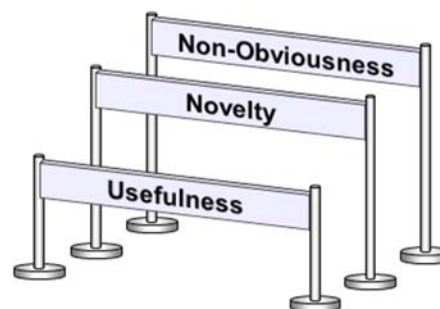
3.0 Evaluation and Disposition

Once UWMRF is in possession of a complete (digitally signed) Invention Disclosure, a UWMRF representative will begin working with the inventor/author to evaluate the invention or work and the Disclosure. The UWM Research Foundation uses a structured process to assess the strength of intellectual property and the market potential for the invention or work.

Evaluation of Inventions and Copyrightable Works

A key aspect of the intellectual property assessment is determining whether or not the invention is likely to receive a patent. As this stage, the UWM Research Foundation uses the same three criteria used by the United States Patent and Trademark Office (USPTO) – *usefulness*, *novelty* and *non-obviousness*.

- **Usefulness** – a patentable invention must serve a *useful* purpose; this is typically the easiest hurdle to achieve;
- **Novelty** – a patentable invention must be absolutely *novel*; ideas that have been described previously in patents or publications cannot be patented. The United State provides one-year grace period to file an application starting from an initial public disclosure. Most other countries require absolute novelty and do not have a grace period.
- **Non-Obviousness** – a patentable invention must not be obvious to *one of ordinary skill in the art as of the effective filing date*.



Patentable ideas must pass three hurdles

A *patent*, as a right to exclude others from practicing an idea, cannot be awarded if its subject matter is already in the public domain—hence the criteria that an invention be new and not obvious. The presence of an invention in the public domain can act as a bar to patentability in circumstances defined by the patent statutes.

If the Disclosure describes software or a copyrightable work, the evaluation criteria may focus more on novelty and whether the product already exists in the marketplace. Federal grants typically reserve to the sponsor a non-exclusive, royalty free license for government purposes to works authored in performance of the grant. UW System policy is generally to leave ownership of copyright of research-related works in the hands of the author(s). The government only has rights to software created if the underlying method for the software constitutes an invention.

UWMRF staff completes an internal evaluation “scorecard” for the Disclosure based on the strength of the technology, the potential for intellectual property protection, market size, and commercial potential. With the help of the inventor/author UWMRF also conducts a “*prior art*” search to determine whether the invention/work is novel and non-obvious. This involves a search for prior publications, products, patents, and any other available information regarding what may be similar commercial products, technologies, or inventions. This process relies on help from the inventor/author to identify related publications and help clarify differences between the Disclosure and the existing art found as a result of the search.

After the evaluation and prior art search are completed the UWMRF staff meets to discuss the commercial viability and patentability of the invention/work. The team then prepares a disposition letter and other relevant materials to aid in explaining the results of the UWMRF evaluation to the inventor/author. The assigned UWMRF staff member will schedule a meeting with the inventor(s)/author(s) to discuss the evaluation results and to present a general management strategy.



It is a goal of the UWM Research Foundation to complete the evaluation and disposition processes no later than 45 days from receipt of the Disclosure assuming that the inventor is available to support meetings as needed on a timely basis. However, if the inventor/author is facing upcoming deadlines that would require a more prompt disposition, they are encouraged to make the UWMRF aware of those constraints and UWMRF will work to accommodate those constraints.

Following the evaluation of the disclosed invention/work, UWMRF staff will assign a management “status” to each invention/work. Such status may be modified over time as more is learned about the invention/work and further research and development are completed in support of the invention/work. Possible status results for invention disclosures include:

- I. **Active** – UWMRF is actively pursuing or maintaining patent or copyright protection for the invention/work.
- II. **On hold-Active** – UWMRF has determined that the invention/work may have the potential for patent or copyright protection but needs further development before beginning the IP protection process. UWMRF will meet with the inventors/authors for periodic updates regarding the progress of the technology development.
- III. **Pre-Invention** – UWMRF has determined that the disclosure is still at the concept only stage and needs further data support and reduction to practice before being considered as a true invention.
- IV. **Returned to Inventor** – UWMRF has decided not to pursue patent or copyright protection and has returned the invention/work to the inventor/author.
- V. **Closed** – After initial attempts at IP protection, the protection has been abandoned due to patent application rejection, lack of progress in further technology development, or lack of commercial interest.

Another function of the UWMRF is to support inventors/authors in the launching of startup companies which revolve around the disclosed invention or work. If UWMRF finds that the subject matter of the Disclosure may be appropriate for a start-up company, and if the inventors/authors express an interest in starting a company, UWMRF may work with the inventor/author to provide guidance on the corporate formation process, to contact area investors and help to build a credible business plan for the proposed company.

UWMRF Responsibilities	Author Responsibilities
✓ Conduct background art search for disclosed invention/work	✓ Provide further materials if necessary
✓ Evaluate Disclosure and provide an assessment to the inventor/author	✓ Meet with UWMRF to answer any further technical questions to aid in the evaluation
✓ Provide a status for the invention disclosure	✓ Evaluate any related patents or materials that UWMRF may believe are related to your invention/work
	✓ Meet with UWMRF to talk about the evaluation and disposition results

4.0 Provisional Patent Application

A U.S. provisional patent application filing with the U.S. Patent and Trademark Office (USPTO) is typically the first step in the patenting process. In some cases, a provisional patent application is filed prior to an upcoming public disclosure such as a conference or publication, in order to preserve certain rights. Filing of a provisional patent application will establish a *priority date* with the USPTO which can help to establish who was first to file and affect what may be considered prior art. The *priority date* may also be used by



foreign patent office's to establish the earliest filing date of a patent application covering a subject invention. The *priority date* determines in part what constitutes prior art, which could be used to challenge the novelty of an invention and thus the validity of the *claims* in a patent application. In the normal progress of science, the earlier the *priority date*, and the less prior art there will be. Therefore, there is a strong incentive to achieve the earliest priority date possible. However, patent laws require that in order to rely on a priority date, the inventor must demonstrate that all aspects of the invention have been completed. No later than 12 months following the filing of a provisional patent application a utility patent application must be submitted to the USPTO if potential intellectual property rights from the provisional patent application are to be maintained. The date of the provisional patent application (i.e., the *priority date*) carries over in the transition to a utility patent application as long as the provisional application meets the legal standards of *enablement* and written description. Therefore, it is critical that a provisional application, if it is to be used as a priority document, fully support the breadth of the claims that will eventually be sought

Provisional patent applications are not reviewed by a USPTO examiner, and provisional applications do not need to contain *claims*. However, the provisional patent must provide sufficient detail for any invention that will later be *claimed* in a *utility application*.

At this stage, the UWM Research Foundation will work with the inventor to ensure that the provisional patent application provides an *enabling disclosure* of the invention so that it forms a valid basis for a future utility patent application. The UWM Research Foundation will work with outside legal counsel to file a provisional patent application.

In order for the UWM Research Foundation to file a provisional patent application, the inventor(s) must also complete an assignment and royalty agreement prior to the filing of the provisional patent application, assigning, transferring and conveying to UWMRF the right, title and interest in and to the invention and any improvements. The assignment and royalty agreement also provides for the distribution to the inventor(s) of a portion of the royalty income generated from the sale, licensing or commercialization of the invention.

UWMRF Responsibilities	Author Responsibilities
✓ Prepare Assignment documents	✓ Provide complete written description of the invention
✓ Prepare and review drafts of provisional patent application	✓ Review drafts of provisional patent application
✓ File provisional patent application working with outside counsel	✓ Complete Assignment documents

The UWMRF staff will work with both the inventor and with outside legal counsel to draft and file a US provisional patent application detailing your invention. A UWMRF representative will work with you to gather all the necessary information to draft the application and will interact with outside legal counsel to the application. You may also be contacted directly by the outside legal counsel for further technical support. Once a draft application is received, you will be asked to review the draft and to provide your comments. This is a very important step in the process and the only way to ensure that the patent application effectively covers your invention. It is important to respond quickly to our requests for review and comment. Delay in this process can lead to loss of patentability.

Once UWMRF receives confirmation that the provisional patent application was filed with the US Patent and Trademark Office, the inventor will receive an email confirming that the application has been filed along with the application serial number and an "as filed" copy of the application. .

During the twelve months after the provisional was filed, UWMRF will contact you at intervals to ask whether you have additional data or information that would be appropriate to add to the patent application. In addition, UWMRF usually will work with the inventor to market the invention to potential licensees or other



commercial partners. If you have generated any additional data, stopped working on the project, or made any additional related discoveries, it is very important that you provide this information to UWMRF as soon as possible.

5.0 Utility Patent Application

Whether the *provisional patent application* will be converted to a *utility application* (or a foreign patent application) may depend upon further development of the idea as well as an ongoing assessment of the market based on attempts to market the technology. Marketing assessment includes whether or not UWMRF has been able to identify any commercial parties who are interested in licensing your invention or whether or not you have decided to form a Start-up company.

Should UWMRF decide to proceed with filing a utility patent application, the process of drafting and filing the application is essentially the same as it was for the provisional application. The most important deadline in this process is the one year anniversary of the filing date of the provisional application.

Once a decision to file a utility patent application is made, one of UWMRF's outside patent counsel will be asked to work with you to prepare the application. The more information that you provide, the easier the preparation will be. Depending on the circumstances, more or less input from you may be required. At a minimum, you must provide information so that the application contains an *enabling disclosure* that includes the "*best mode*" of practicing the invention known to you, and that provides a complete written description. Because you may not know what constitutes an "*enabling disclosure*" or a "*complete written description*," the patent attorney will work with you to ensure that the legal standards are met. For example, after you provide a written disclosure of your invention, which might or might not be in the form of a polished manuscript, the patent attorney may send you a list of questions that need to be answered. You should recognize that since most experimental data supports only a narrow invention, your input will be required if you seek patent protection that extends beyond your experimental results, because your application will need to adequately describe and enable broader subject matter.

This raises an important point: the patent laws allow an inventor to claim an invention that he or she has not actually reduced to practice, provided that an adequate disclosure is provided. The filing of an application that sufficiently describes and enables "hypothetical" embodiments of an invention is said to constitute "*constructive reduction to practice*" of those embodiments. The breadth of scope attainable by constructive reduction to practice underscores the importance of careful application drafting.

The UWMRF may alternatively decide to initiate foreign patent filings by filing a patent application under the Patent Cooperation Treaty (PCT), signed by many countries. Although the PCT system does not allow for a grant of an international patent, the system does provide a simplified process for seeking foreign patent protection of an invention. Under the PCT, a single international patent application is filed in order to simultaneously begin the process of seeking patent protection in each country that is a signatory to the PCT. A PCT application provides an option to file national or regional applications in most countries (including the U.S.) within 30 or 31 months of the earliest claimed priority date. Filing a PCT application allows the formalization of the application through a single organization that then provides materials to signatory countries, streamlining the process.

The cost of filing the PCT application is a relatively small increment above the normal cost to prepare a U.S. patent application; however, entering the national stage in a number of signatory countries can become very expensive. This will depend on which, and how many, national filings are pursued, and it is not unusual for the national stage filing fees to be ten or twenty times the cost of the original PCT filing. The PCT application is published within about 18 months after the earliest claimed priority date.



Once UWMRF receives confirmation that the patent application was filed with the US Patent and Trademark Office, the inventor will receive an email confirming that the application has been filed along with the application serial number and an “as filed” copy of the application. UWMRF will also request that you sign an assignment form and a Declaration and Power of Attorney form for the U.S. Patent and Trademark Office. Each named inventor, whether they are the sole inventor or a joint inventor, must execute a "Declaration" averring that they are an original and first inventor of the subject matter claimed. The Declaration is an important legal document and knowingly making a false statement can be punished by fines or imprisonment.

UWMRF Responsibilities	Author Responsibilities
<ul style="list-style-type: none"> ✓ Prepare Assignment documents ✓ Prepare Declaration and Power of Attorney forms ✓ Aid in review of drafts ✓ File patent application working with outside counsel ✓ Aid in completing information disclosure statement (IDS) 	<ul style="list-style-type: none"> ✓ Provide complete description of the invention ✓ Aid in writing examples (scientific results/supporting evidence) of the invention ✓ Work with IP attorneys to review and revise drafts of the application ✓ Complete Assignment, Declaration and POA documents ✓ Aid in collecting PDF copies of all related references for the information disclosure statement(IDS)

In the case where UWMRF decides not to pursue a utility application the matter may be assigned back to the inventors. UWMRF will work with inventors to identify available resources if they choose to pursue patent protection on their own. If a provisional patent is not converted to a utility application within a year, it will become abandoned and a part of the public domain where anyone can access and use the invention.

6.0 Patent Prosecution

Prosecution of the patent application will begin when the Examiner at the Patent Office picks up the application and begins the review process which could occur between one to four years after the utility application is filed. The Patent Office will communicate with UWMRF through a series of *office actions*.

UWMRF will handle communications with the Patent Office, responding to any *office actions* and taking the steps necessary to prosecute the application. UWMRF will contact you for additional information during this process. It is important that you respond quickly when asked because the Patent Office invokes statutory deadlines that can result in loss of patentability if the deadlines are not met. This prosecution can take several years to complete (it is not unusual for 5-7 years to pass before a patent issues) and may or may not result in the issuance of a US patent.

UWMRF covers all of the patent related preparation and maintenance costs.



UWMRF Responsibilities	Author Responsibilities
<ul style="list-style-type: none"> ✓ Communicate with attorneys regarding office actions ✓ Coordinate meetings with attorneys and inventors regarding office actions ✓ Support response to office actions ✓ Pay patent issue fees and ongoing maintenance fees 	<ul style="list-style-type: none"> ✓ Review materials cited by patent examiner and describe how the invention is different ✓ Aid in forming responses to office actions ✓ Work with UWMRF and attorneys to refine claim strategy ✓ Respond quickly to ensure deadlines are met

7.0 Marketing

Once an invention disclosure has been accepted by UWMRF as an active matter, the UWMRF team will work with the inventor/author to identify possible licensees. With the help and input of the inventor/author we develop a non-confidential summary (NCS) of the technology, a non-confidential marketing slide deck, and other materials further describing the work. Together with the inventor/author we also identify and research organizations and companies (marketing targets) that may be interested in reviewing the invention/work and related technologies. UWMRF will contact the companies on the inventor/author's behalf providing the NCS and/or slide deck. UWMRF will keep track of all contacts, provide updates to the inventor/author, coordinate any contact with the inventor/author such as teleconferences, and help to initiate and complete any agreements that may be needed as a company evaluates the invention/work, such as material transfer agreements (MTAs) or confidentiality agreements (CDA). Once significant interest is received from a company, UWMRF will help in guiding further licensing discussions.

UWMRF Responsibilities	Author Responsibilities
<ul style="list-style-type: none"> ✓ Develop a non-confidential summary and marketing slide deck ✓ Develop a marketing target list ✓ Contact and communicate with marketing target companies ✓ Arrange conference calls with companies and inventor/author ✓ Coordinate with company and inventor/author in any research development partnership or licensing discussions 	<ul style="list-style-type: none"> ✓ Work with UWMRF to develop a non-confidential summary and marketing slide deck ✓ Help in finalizing a marketing target list ✓ Provide answers to any technical questions from marketing targets ✓ Provide technical expertise during teleconferences with potential licensees

If the inventor/author is interested in developing a start-up company based on the invention, UWMRF will aid in finding appropriate business partners and investors that may be interested in collaboration.

The marketing efforts most often occur immediately after a provisional patent application is filed. The UWMRF uses the 9-10 months following this patent filing to reach out to potential licensees. Within ten months of filing the provisional application, the UWMRF must decide whether to convert the provisional patent application to a formal utility patent application. This decision is made based on the advancement of the technology by the inventor(s), whether there was any significant market interest from companies, or whether a license agreement was executed. If there is a lack of interest from the commercial market and/or the invention is not developed far enough to attract licensees, the UWMRF reserves the right to return the invention back to the inventor(s) and not proceed further in the patenting and licensing process. The



inventor(s) are given the opportunity to take back ownership of the intellectual property and pursue patenting and commercialization on their own.

8.0 Licensing

During the marketing phase, UWMRF works with the inventor/author to explore if there is significant interest in the invention/work from outside companies or business partners/investors in the case of a start-up venture. Once a company has indicated a serious interest in further collaboration for research and development or direct licensing of a technology, UWMRF will prepare a draft licensing agreement to begin licensing negotiations. UWMRF will interact with the company officials to negotiate and fine tune any licensing terms towards agreeable terms for both parties.

In some cases, a potential licensee may complete an option agreement which typically grants them the option to negotiate for future rights. This is typically done in return for research support that may further validate the invention.

If the inventor/author is alternatively working to form a start-up company with outside business partners and investors, UWMRF will also work with the business associates to negotiate the licensing agreement terms. In both situations, UWMRF will be responsible for license administration and for keeping track of milestone and royalty payments as appropriate.

UWMRF Responsibilities	Author Responsibilities
✓ Identify strong licensing candidates	✓ Provide input on licensing partnerships
✓ Draft and negotiate licensing term sheets	✓ Work with business partners in establishing a start-up company
✓ Keep track of milestone and royalty payments	

9.0 Copyright Protection

The UWM Research Foundation can also work with inventors/authors to protect and market copyrighted work such as computer software, books, photographs or copyrighted assessment tools or other copyrightable content. In this case, the process for marketing and licensing the copyrighted work is similar to that for patentable inventions.

Copyright protects the authors of "original works of authorship," including literary, dramatic, musical, artistic, and certain other intellectual works, both published and unpublished. The 1976 Copyright Act generally gives the owner of a copyright the exclusive right to reproduce the copyrighted work, to prepare derivative works, to distribute copies of phonograph records, CDs, and DVDs of the copyrighted work, to perform the copyrighted work publicly, or to display the copyrighted work publicly.

The copyright protects the form of expression rather than its subject matter. For example, a description of a machine could be copyrighted, but this would only prevent others from copying the description; it would not prevent others from writing a description of their own or from making and using the invention.

Computer software is frequently subject to copyright protection. As discussed above, however, the scope of protection is relatively narrow. If the underlying algorithm meets the patentability standards, patent protection is a much more secure option and would protect a broader scope of use.



UWMRF Responsibilities	Author Responsibilities
<ul style="list-style-type: none"> ✓ Evaluate whether invention/work is appropriate for copyright or patent protection ✓ Register copyrights with U.S. copyright office 	<ul style="list-style-type: none"> ✓ Provide input on licensing partnerships ✓ Work with business partners in establishing a start-up company

10.0 Materials and Knowhow

In some cases, a researcher may wish to transfer materials (and associated knowhow) to a third party. If materials are associated with a UWMRF patent application, it is important that the transfer of materials is done with restrictions that limit the use of those materials – typically for non-commercial, research purposes or for limited evaluation by a potential licensee.

The UWM Research Foundation can work with the researcher/inventor and the University to transfer materials and knowhow. There are provisions for recovery of costs to produce materials, and the UWM Research Foundation will work with the inventor to develop pricing for the materials and arrange pricing approval from the Deans of the graduate school. UWMRF will also draft a Material Transfer agreement (MTA) to protect the interests of the inventor and any related intellectual property based on the invention/work.

UWMRF Responsibilities	Author Responsibilities
<ul style="list-style-type: none"> ✓ Help inventor/author develop pricing for materials ✓ Work with Deans to obtain approval for pricing ✓ Draft an MTA for sale of materials ✓ Work with inventor to arrange a procedure for shipment of materials upon request 	<ul style="list-style-type: none"> ✓ Prepare a detailed analysis for actual cost to make material or product ✓ Prepare materials when a request is received ✓ Work with UWMRF to ship materials

Glossary of Patent Terms

Application (for patent)- Papers comprising petition, specification, drawings (when required), one or more claims, oath or declaration and filing fee, whereby an applicant seeks a patent.

Best Mode– Patent Law requires that a patent application include the best mode in the description of the invention. The best mode is the best way that the inventor considers at the time of filing the patent application for making and using the claimed invention.

Claim(s)- A claim is one of the numbered paragraphs that appear at the end of a patent and defines the scope of protection given to the owner of the patent (i.e., the right to prevent others from making, using, selling, offering for sale, or importing the claimed invention). Each claim is treated separately for purposes of determining validity and infringement. For example, claims may be directed toward apparatus, methods, products, and compositions of matter and new and useful improvements thereof. Each claim defines a claimed invention by its periphery. A valid claim is one which reads on the invention described in the specification but does not read on any prior art.

Conception- This is the creation of the mental concept of the invention.



Constructive Reduction to Practice- A reduction to practice involves physical verification of the operability of the invention or its suitability for its intended purpose. When one files a U.S. patent application, one obtains a constructive reduction to practice as of the filing date.

Declaration- An inventor or group of inventors is required to sign and submit an oath or a declaration as part of the patent application. The declaration or oath should state that the inventor believes that he is an inventor, that he is familiar with the contents of the patent application and that if he is aware of any information that will affect the patentability of claimed invention, that he will inform the patent office of that information.

Enablement- Patent law requires that a patent application describe the claimed invention in such a way that anyone of ordinary skill in the technology that the invention is concerned with will be able to make and use the claimed invention.

Examiner- The examiner is the employee of the patent office who reviews the patent application and judges the novelty of the claimed invention.

Intellectual Property - refers to creations — including inventions, artistic works, names and designs — that are legally protected. Intellectual property includes patents, copyrights, trademarks and trade secrets.

Invention- In the United States, in order to have a patentable invention, one must have a development that is useful, novel (no single prior art reference shows the identical development), and unobvious to one skilled in the art at the time the invention was made, which is assumed to be the filing date of the patent application.

Inventor- One who contributes to the conception and reduction to practice of one or more of the claims in a patent application or patent.

License- A transfer of patent rights that does not amount to an assignment. A license, which can be exclusive or non-exclusive, does not give the licensee the legal title to the patent.

Non-Obviousness- A patentable invention is required to be non-obviousness. This means that there are no references in combination or individually that teach all of the elements of the claimed invention. Non-obviousness also means that one of ordinary skill in the art would not feel that the claimed invention is obviousness.

Novelty- One of the conditions that an invention must meet in order to be patentable. Novelty is present if no single piece of prior art discloses every element of the claimed invention.

Offer to Sell- Patent law tries to restrict products already on the market from getting patented, while at the same time allowing an inventor to determine the marketable value of his invention. One way to satisfy both objectives is to not allow an inventor to file a patent application on an invention that was sold or offered to be sold one year before the filing date.

Office Action- An official written communication from an examiner in the U.S. Patent and Trademark Office giving the position of the U.S. Patent and Trademark Office on a pending patent application. After receiving an adverse office action, the applicant must respond within the set time limits.

Ordinary Skill in the Art- The level of technical knowledge, experience, and expertise possessed by the run-of-the-mill or ordinary engineer, scientist, or designer in the field that is relevant to the invention at the time of filing. Obviousness is measured with reference to a hypothetical person having ordinary skill in the art to which the invention pertains.



Patent– A granted patent is issued by a government which gives an inventor or patent owner certain rights pertaining to the claimed invention defined in the patent. In the United States, the U.S. government grants the owner of the patent a monopoly on the claim invention in exchange for his disclosure of the idea to the public. This tradeoff is designed to encourage innovation, while making society better off in the long run by exposing the public to new ideas.

Patent Cooperation Treaty (PCT)– The PCT is a treaty that simplifies foreign patent filings in countries that are members of the World Trade Organization. A PCT filing allows an inventor to initially file a single patent application with a receiving office (usually the U.S. Patent Office or the European Patent Office) where the patent application will receive an initial international examination before the inventor needs to decide which foreign countries he desires to file in. Once the application enters into a foreign country, the patent application will be reviewed again since all countries have different patent laws, but usually those national examinations rely heavily on the international examination.

Prior Art– Prior art is the term to describe all of the knowledge and references pertaining to the technology of the claimed invention in the patent application. In a broad sense prior art consists of technology that is relevant to an invention and was publicly available (e.g. described in a publication or offered for sale) at the time an invention was made. In a more narrow sense, it is any such technology which would invalidate a patent or limit its scope. The process of prosecuting a patent or interpreting its claims largely consists of identifying relevant prior art and distinguishing the claimed invention from that prior art.

Priority Date– A priority date is the earliest filing date that a patent application can claim. Some patent applications that are related to earlier filed patent applications by the same inventor can claim priority to the earlier applications.

Reduction to Practice- The physical part of the inventive process that completes the process of invention. Until there is a reduction of practice, there is no invention. There are two kinds of reduction of practice: Constructive reduction to practice occurs upon the filing of a U.S. patent application that adequately discloses the invention. Constructive reduction to practice does not involve any physical construction. Actual reduction to practice occurs when there is physical verification that the invention works for the intended purpose. The reduction to practice must involve each and every element that is defined as constituting the invention. The degree of physical verification required will depend on the nature and complexity of the invention.

USPTO (Patent and Trademark Office)- The office of the U.S. Department of Commerce that is responsible for examining and issuing patents.

External resources

The United States Patent Office Web site (<http://www.uspto.gov/>) offers valuable information to inventors. It supports searches of issued patents and publications.

The USPTO Web site (<http://www.uspto.gov/web/offices/pac/mpep/mpep.htm>) also offers guidelines for the preparation and prosecution of patent applications, such as the Manual of Patent Examining Procedures, which has links to the patent regulations in 37 C.F.R. and the patent statutes in 35 USC.

The European Patent Office Web site (<http://www.european-patent-office.org/index.en.php>) supports searches of non-US applications.

The United States Copyright Office Web site (<http://www.copyright.gov/>) contains information on copyright and how to register a work. There are also links to other pages with copyright information (<http://www.copyright.gov/resces.html>).