Guide for Faculty Inventors

INNOVATION + PARTNERSHIPS

McGill

Innovation + Partnerships (I+P)

Guide for Faculty Inventors

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1. INTRODUCTION

The quest for knowledge is, for many academics and researchers, an almost fundamental urge.

It is a passion that unites researchers from all disciplines and fields. However, for certain types of inquiry, there comes a time when it is necessary to move beyond pure knowledge. The value of many great innovations is often only realized when they benefit a large number of people. And achieving benefits outside of university walls is accomplished through a process known as Technology Transfer. Once an idea has been conceived, tested, and proven to work, often the next step is to put that idea into successful practice. This can be done in many ways, including free release into the public domain, partnering with a commercial entity, or starting a company. Each approach has its benefits and drawbacks.

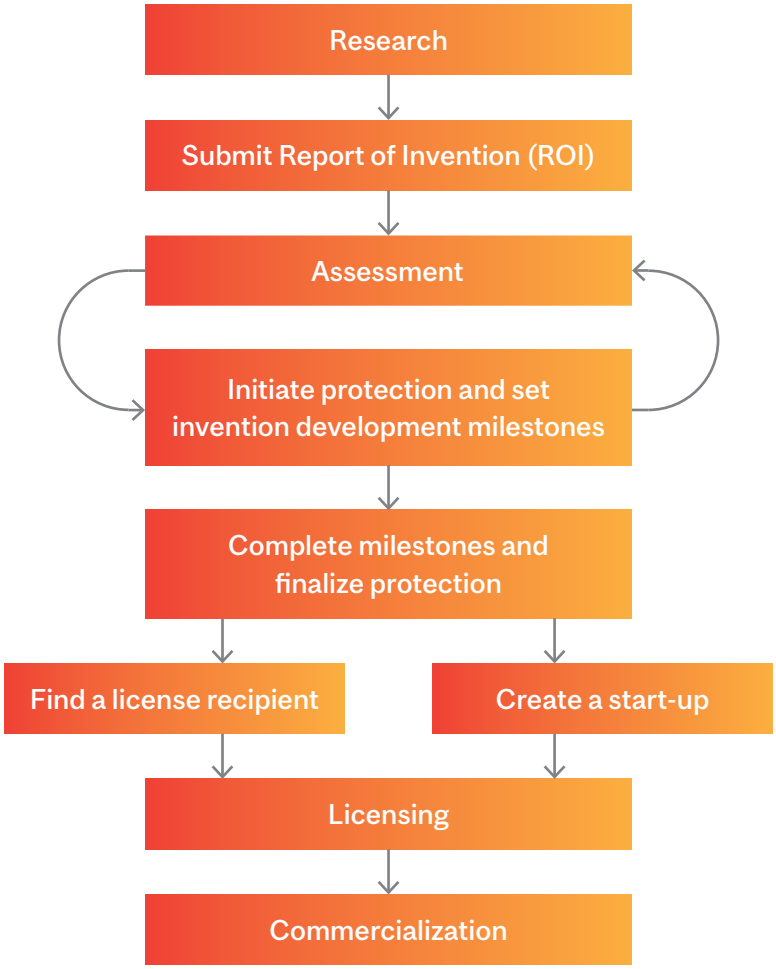
This guide is to help McGill researchers who have developed an idea or an invention, and who are wondering how they can best realize its potential. This guide explains the various steps in the invention declaration process, how to control the Intellectual Property that the invention represents, and how to find partners who can help bring this invention to fruition.

This guide has been prepared by the McGill Office of Innovation + Partnerships (I+P), which has the mandate of creating viable routes for transforming research and discoveries into products, processes, and services that benefit society. Our team of specialists, many of whom are patent holders and inventors, is ready to help you bring your concept from the drawing board to use in society.

2. TECHNOLOGY TRANSFER AT MCGILL

At McGill University, we believe that technology transfer is directly aligned with our public mission. The technology transfer team within the Office of Innovation and Partnerships (I+P) works closely with McGill inventors, helping them to navigate the technology transfer process. Our objective is to connect McGill's research outputs – our ideas, technologies, solutions and ventures – to the people and groups who will help them have the greatest impact.

The Technology Transfer Process

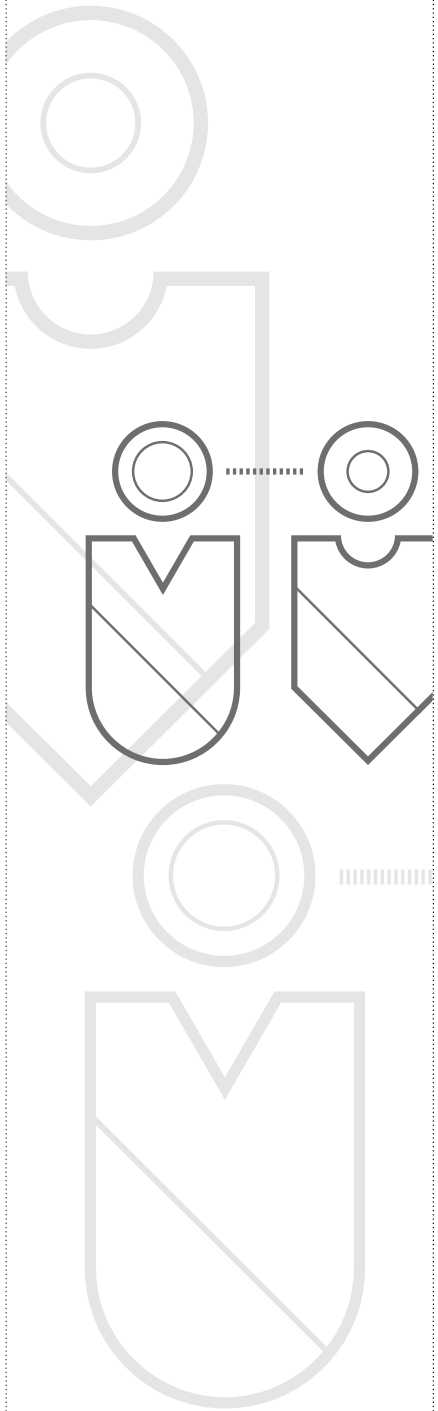


In a nutshell, McGill's technology transfer process works as follows: When a McGill-affiliated researcher wishes to commercialize an invention, their first step is to submit a Report of Invention (ROI) to I+P via an on-line submission process. Once the ROI is checked for accuracy and completeness, I+P then assigns a Technology Transfer Manager (TTM) to the invention who will follow the file throughout the intellectual property protection and commercialization process. The TTM will meet with the inventor(s) to discuss the invention and the next steps in the assessment process.

As part of this process, I+P conducts a preliminary due diligence exercise to ensure the invention is novel and non-obvious, and to determine whether it is likely to have commercial potential. This phase involves a dialogue with the inventor(s).

If I+P determines the invention to be suitable for commercialization, the lead inventor and the TTM discuss and develop an appropriate plan that is tailored to the invention. Where appropriate, the TTM will contract an external patent agent to file a patent application. With an intellectual property strategy in place, the TTM can negotiate non-disclosure agreements, material transfer agreements, options, licenses and other agreements with industry partners to commercialize the invention or to spin off a company from McGill. In addition to these steps, the inventor(s) will need to assign the rights to their invention to McGill (see page 14 for more details).

If the TTM declines to offer university support for commercialization, or the inventors wish to commercialize the technology without university assistance, McGill will transfer its rights to the intellectual property to the inventors. Further information regarding McGill's technology transfer and commercialization process is provided in the sections below.



3. INTELLECTUAL PROPERTY (IP)

What is intellectual property?

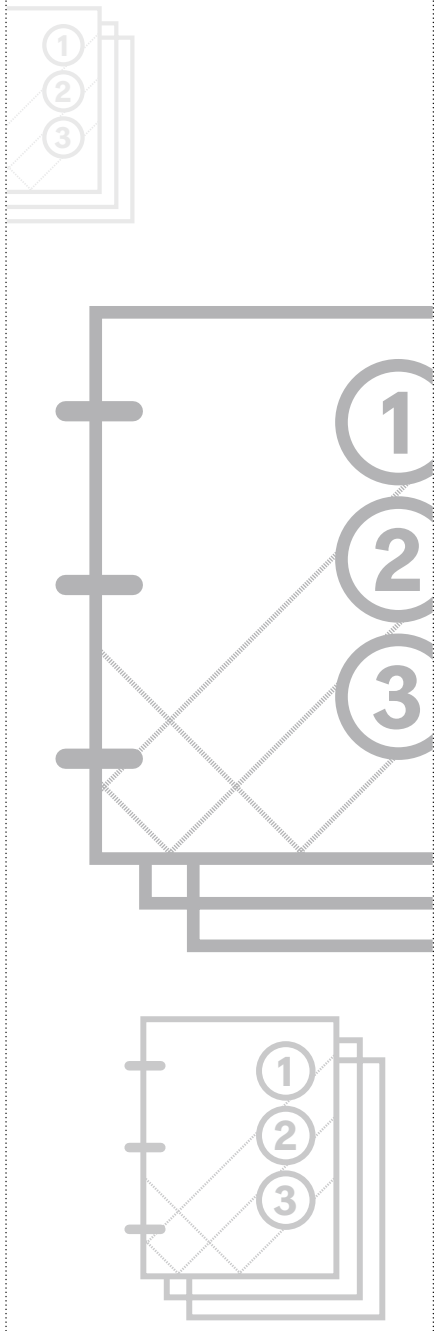
Intellectual Property (IP) refers to any form of knowledge or expression created with one's intellect and translated into practice. Scientific discoveries, musical, literary and artistic works, computer software, designs, symbols, and names can all be forms of intellectual property. Canadian law defines the forms of statutory protection for intellectual property. Common forms of intellectual property, enforceable and protectable by statute, include copyrights, trademarks, patents, industrial design rights and trade secrets. IP is protected by law, and depending on the type of IP rights owned, the owner is entitled to limit the scope of what others can do with it.

If I report an invention, is it protected?

No, an invention is only "protected" when it is under patent, copyright or another form of protection enforceable by statute. Reporting an invention to I+P initiates the IP protection and commercialization process, but does not provide intellectual property protection.

Who owns what I invent?

It depends. In the case of copyright, the author owns the original copyright. In the case of inventions or software, the intellectual property is owned jointly by the inventor(s) and the University. If the University agrees to support the commercialization process, then the inventor(s) assigns their rights to the University, thus allowing McGill to assume the costs and risks of the commercialization process, and to pursue licensing and other agreements. If the inventor(s) wishes to assume the lead in commercializing the technology independently of the University, or if McGill declines to pursue/continue protection and commercialization of the invention, then the University will assign its rights to the inventor(s). In both cases, the University retains the right to use the IP for research or teaching purposes and to share in a portion of the revenue generated.



Where can I find McGill's policies related to intellectual property?

You can find the policies on the I+P website.

Who owns rights to discoveries I make while I am a consultant for an external organization?

When you agree to consult for an external organization for work to be done without the use of McGill facilities, you may be acting outside the scope of your employment at McGill. In such cases, the University would not review your agreement as a matter of course. You should be careful to ensure that your consulting engagements, and any resulting IP implications, are consistent with McGill's policies. I+P can provide informal advice regarding these situations.

Do Research Assistants fall under the Policy on Inventions and Software? What about students?

McGill's Policy on Inventions and Software states that an inventor can be "any student, employee, or appointee" of McGill, so Research Assistants can certainly be inventors. Students can also fall under the Policy if their work fits into one of the following categories:

- The invention is part of a graduate student's thesis work
- The invention involves activities for which the student is paid by the University
- The invention involves research or coursework that is the subject of an agreement with a third party
- The invention was created, conceived, developed or first reduced to practice with the creative input or inventive contribution of a non-student inventor (such as a professor)
- The invention makes substantial use of University facilities

So inventions created by graduate students generally fall under McGill's Policy on Inventions and Software while inventions created by undergraduate students usually do not. If there are questions about whether an invention or an inventor falls within the Policy, please speak to I+P.

What constitutes a disclosure?

The publication of Masters and PhD theses, articles, scholarly writings, and oral or written content presented as lectures, at conferences or seminars outside of McGill, or in the presence of non-McGill attendees that make reference to your discovery, all constitute disclosures. Other displays of your work, including conference poster sessions, also constitute a disclosure. Presentation or discussion of your research within McGill when there are only McGill personnel present, such as at lab meetings, do not constitute disclosures. Similarly, grant applications or publications under review are not considered disclosures as reviewers are subject to confidentiality agreements with the funding agencies or journals.

What is background IP and who owns it?

Background IP refers to any intellectual property that has been developed prior to the start of a project and is owned by each respective party/person.

How do I get money from an invention?

You can earn money by commercializing your invention through a license agreement or by launching a start-up company. Net revenues from commercialization are shared between the inventor and the University. An explanation of how net revenues are divided appears in a later section of this document.

4. REPORTING YOUR INVENTION

Who is an "inventor"? Who is an "author"?

An "inventor" is the individual who conceived the invention, or someone who contributed to its conception. According to McGill's Policy on Inventions and Software, an inventor is any student, employee, or appointee of the University, whether academic or administrative and support staff, or any physical person, such as a Visiting Professor, working or doing research at or under the auspices of the University, who satisfies the applicable statutory requirements of inventorship. This also applies to creators of software. An "author" is anyone from the above-defined group who has written or created a "work".
(see section 6 on Copyright for what defines a work)

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

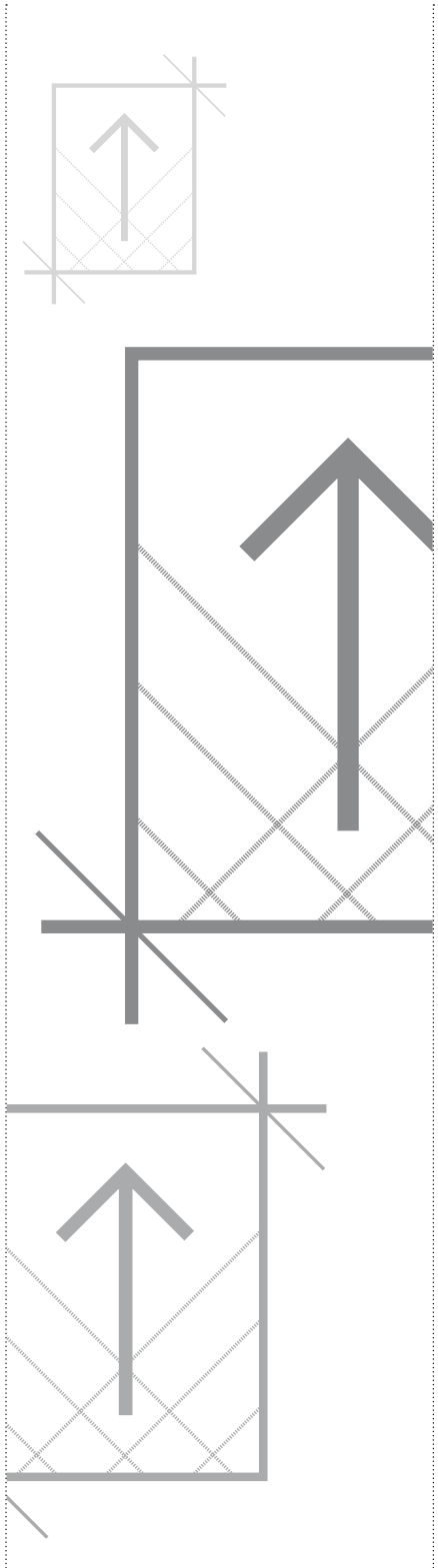
This is possible, but publishing can limit the opportunity to protect your invention, therefore properly timing publication is crucial. It is best to consult with a TTM to get advice on how to proceed well ahead of the time you plan to disclose your invention.

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

Yes. The I+P Office can help you to acquire material from others through a Material Transfer Agreement (MTA). If your research using this material should result in a potential invention disclosure, it is important to also disclose the material or intellectual property you made use of in order to determine if any other parties have a claim on the rights to the invention or datasets.

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

Yes, please contact I+P in order to discuss the best mechanism prior to sharing your material.



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

Research sponsored through contracts and grants from the private sector are increasingly common and are encouraged by funding agencies as a vehicle for fostering partnerships to exploit mutual strengths. If research is being conducted under an agreement with a company, the publication of research outcomes may be subject to some conditions, such as providing a reasonable delay for publication in order to apply for IP protection. In addition, sponsors may be granted some rights in the resulting IP, such as an option or license. The research contract should include clauses addressing ownership of results and inventions as well as any right to review publications. It's best to consult I+P to make sure you're clear on what conditions apply to your sponsored research.

What is a Report of Invention?

The first step to disclosing an invention is to complete an on-line Report of Invention (ROI) submission. This begins the process of evaluating the disclosure in order to assess its commercial potential. Note that the ROI is not a patent application and does not provide any protection to your invention.

Why should I submit an ROI?

The commercialization of research outcomes is an important objective not just for researchers, but for most public and private funding programs as well. It is a well-recognized way of promoting knowledge mobilization and transfer. It can also be very rewarding, with potential benefits to society, the economy and the environment at large. As well, the Policy on Inventions and Software states that inventors are required to disclose any inventions or software they wish to develop for commercial purposes. Note that inventor(s) are not obliged to seek commercial development of their work, and may simply seek to publish or otherwise disseminate it.

How do I know if my discovery is an invention?

If you have an idea for an invention that you feel can solve a significant problem or could have significant value, you are encouraged to get in touch with I+P to discuss its commercial potential. Licensing is only one among a number of options, and I+P can discuss all the commercialization options with you.

When should I submit an ROI?

You should complete and submit an ROI when you feel that you have discovered something unique with potential commercial or social value, and that is supported by data, functioning prototypes or some other form of validation. This should be done well before you publish (ideally at the time when you complete a manuscript) or present your discovery. Once a public disclosure is made about the nature of your discovery or invention, your options for protecting it or patenting are severely restricted.

Should I disclose research tools?

Research tools, like cell lines, mouse models, vectors, antibodies, or other materials used as "tools" in the research process, do not necessarily need to be protected by patents in order to be licensed for commercialization, but should be disclosed. As long as they have not been widely distributed before they are licensed, research tools could generate revenue without requiring any patent protection.

Should I file a ROI on software?

According to the McGill Policy on Inventions and Software, intention to commercialize any invention, including software, must be reported. While we might not assume responsibility for commercializing all new software, content, databases, apps, and websites that are reported, we may be able to point you in the right direction so that you can commercialize them yourself.

How do I submit a ROI?

The Report of Invention form must be submitted electronically through an on-line process.

Should I list Visiting Professors/Scientists on my ROI?

Your ROI should list all the individuals who contributed to the ideas leading to a discovery, even if they are not affiliated with McGill. I+P will help determine how these individuals will be treated. It is advisable to discuss all collaboration partners related to the invention with I+P prior to filing the ROI to understand the implications for the future of the invention.

Is a ROI the same as a provisional patent application?

No, these are two entirely separate documents and processes. See the section below on provisional patent applications.

I filed a ROI. What happens next?

A successfully submitted Report of Invention initiates a process, as described in the Guidelines to the McGill Policy on Inventions and Software, which might lead to protection and commercialization of your invention. I+P will examine your ROI for completeness following its submission as an online disclosure. If any information is missing, the inventors must complete the missing information, otherwise the ROI will be returned to the inventors. Once the ROI is complete and has been accepted, I+P will perform an initial review with the inventors using preliminary review questions. After a positive initial review, I+P will perform a due diligence review, including patentability and merchantability assessments that will result in a mutually agreed development plan.

Why does McGill assess reported inventions?

Before devoting financial, physical and human resources, McGill needs to determine whether a technology is free from third party rights and has commercial potential, and if the invention should be protected via patent or copyright.

What is involved in an assessment?

The tools typically used in an assessment include:

- Market study
- Intellectual property search
- Review of previous disclosures
- Discussion of potential partners
- Potential path to market (licensing versus a start-up)
- Identification of any licensing barriers

What is my role in the assessment?

The researchers play a key role in the assessment, as they have the deepest knowledge of the invention and may have already received external feedback on the technology. Some specific contributions include:

- Provide a list of publications, grants, and disclosures
- Have companies already been contacted about this technology? Have they contacted you?
- Participate in patent searches and review prior art to assist in determining novelty and non-obviousness
- Declare any conflicts of interest

Based on the outcome of the assessment, what happens next?

If the assessment is positive, the invention will move to the next phase of the technology transfer process, where the strategy for protecting and commercializing the technology will be developed as part of the development plan. If the assessment is negative, the invention will be declined by I+P. If desired, McGill's rights in the technology can be transferred to the inventors so they can pursue commercialization on their own, as described in the Policy on Inventions and Software.

5. PATENTS

What is a patent?

A patent gives the patent owner the right to exclude third parties from making, using, selling, and importing the protected invention. It is important to note that the "right to exclude" is essentially a defensive measure. It does not necessarily authorize the owner to practice a technology, if the technology is linked to another patent(s) owned by a third party. A patent is created by inventors and granted to the owner, or assignee, of the patent. An assignee may license or assign the patent rights to other parties.

What types of subject matter can be patented?

An invention can be patented if it meets all three of the following criteria:

- It must be novel (first in the world).
- It must be useful (operational and functional).
- It must show inventive ingenuity and be non-obvious to someone of average skill in the field.

Can someone patent a naturally occurring substance?

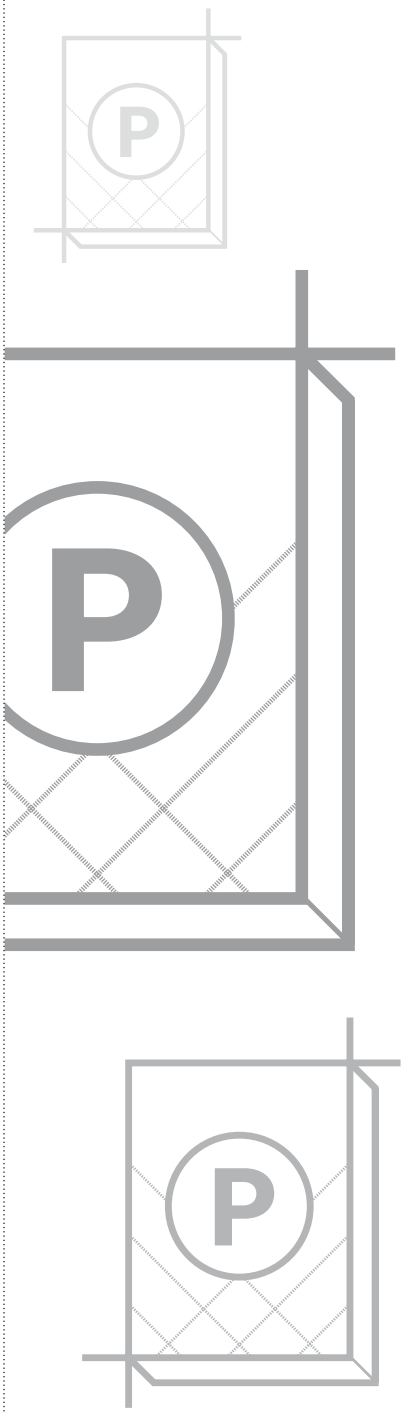
No, not in its natural state unless it has never before been isolated or known. Alternatively, a variation of a naturally occurring substance may be patentable if an inventor is able to demonstrate substantial non-obvious modifications that offer significant advantages in using the variant.

How are patents governed?

Each country governs their own patents. In the United States, the United States Patent and Trademark Office (USPTO) is the federal agency that administers patents on behalf of the U.S. government. The equivalent organization in Canada is the Canadian Intellectual Property Office (CIPO). These organizations employ patent examiners skilled in all technical fields in order to appraise patent applications. These offices also issue copyright and trademark registrations.

What qualifies as patentable subject matter?

Patentable subject matter includes processes, machines, compositions of matter, articles of manufacture, and methods, specifically the ones that leave an indication in the final product so that a method patent can be enforced. However, each jurisdiction has its specific restrictions.



What if my invention is a software? Can it be patented?

Software can possibly be patented, but it is challenging. Formulae and algorithms are generally not patentable, so a careful review of software and its functionality must be completed. Additionally, we have been successful commercializing software without any patents and given the time to market for software products, the technology may be obsolete before the patent is issued.

How is an inventor on a patent defined?

The only country (jurisdiction) defining an inventor by law is the United States, where an inventor is a person who conceptualized the invention as described in the claims of a patent application. As the claims may be changed during prosecution of the application, even the inventors can change. Inventorship is best confirmed by the patent agent prosecuting the application. Monetary contribution to making the invention is not sufficient to be considered an inventor.

How does the patenting process work?

Patent agents draft, file, and support the prosecution of patent applications. After filing a utility patent application, the patent agents and the patent examiners of the patent agencies exchange arguments regarding the validity of the claims of the application as filed and as they might relate to so-called "prior art", which is anything that has been published before. The communication sent by the patent agency is referred to as an "office action". If the claims become "allowable", the examiner agrees to issue a patent.

Who is responsible for patenting at McGill?

I+P is responsible for patenting technology where McGill has the lead for commercialization in accordance with the Policy on Inventions and Software. I+P staff themselves do not draft patent applications, but work with external patent specialists in different technology areas. Inventors work with the patent agents in drafting the patent applications and responses to worldwide patent offices.

What is the patenting process and how will McGill support this? What are the associated timelines and costs?

In the event that the decision is made to pursue IP protection (patenting may not be necessary, as in the case of software or copyright materials), a TTM can assist you with the process. Generally, this includes an initial assessment by a TTM, a preliminary search of the existing patent landscape, a preliminary search of the market potential and competition, and a review by the manager. If it is decided that IP protection is warranted, then a patent filing will be prepared and submitted. In these cases, McGill provides the funds necessary to pursue patent applications, and looks for other funding sources to support these costs as well. Timelines can vary, so it's best to get in touch with I+P to discuss your specific case.

As an inventor, what role do I play in the patenting process?

When an application is filed, inventor(s) have to transfer the rights to the patent application to the University in an "Assignment". During prosecution, inventors have to provide:

1) All publications referenced in the application for the "Information Disclosure Statement", which is essential for the enforceability and validity of the issued patent
2) Input to defend the technical aspects of the invention against the prior art

What if I publicly disclose my research results before filing? Can I still get a patent?

Publishing or presenting your invention before submitting a patent application has an impact, and may prevent a patent filing. I+P would like to know about your invention before you publish, lecture, present posters, abstracts, website descriptions, posts on social media, submit research proposals or theses, or offer the invention to a third party.

Is a patent like a publication, where the order of the authors relates to their contribution?

A patent application is not like a publication. There is no distinction between inventor contributions on a patent application. Furthermore, the criteria for being named an inventor on a patent are different than being named an author on a publication. I+P can help you determine inventorship for your technology.

What is a provisional patent application?

Since most patents are awarded on a "first-to-file" basis, a provisional patent application allows the inventors to preserve their patent rights as early as possible, and buys time for the submission of a more complete application. A provisional patent application is recognized globally, so starting the patenting process with a provisional application can still allow for worldwide patent applications, as long as there are no prior disclosures. The advantages of a provisional patent application are that it still preserves patent rights, postpones costly patent prosecution, and allows for the addition of new examples. It provides the inventors with twelve months' time to further refine their development plan before having to file a non-provisional application.

What is the next step after a provisional patent application?

After a provisional patent application, you can apply for a foreign patent through the Canadian Intellectual Property Office under the Patent Cooperation Treaty (PCT), or directly to the patent office of the foreign country concerned.

The World Intellectual Property Organization (WIPO) in Geneva administers the PCT application and provides a standardized international filing procedure that is shared by Canada's principal trading partners, including the United States, China, Japan, and most of the European community. Under the PCT, it is possible to file for a patent in over 150 member countries through a single application filed in Canada.

If I have a patent in one country, does it protect me everywhere?

Patents in one country do not protect patent holders from patent infringement in other jurisdictions. Therefore, the patent holder may need to obtain patents in other countries. Note that the costs to apply for and maintain patents varies significantly between countries, and some countries require the application to be translated into the local language. Each country has its own patent laws, so it is best to consult with I+P in order to determine a patenting strategy that makes sense for your invention.

How long does a patent application stay out of the public domain?

The content of US provisional applications and their subsequent US utility or PCT filings is published 18 months after the initial priority date. After that date, the application and all documents related to its prosecution are publicly available.

How long does the patenting process take? How long will my invention have patent protection?

The length of the patenting process depends on the backlog of the patent agencies, the response periods of the applicants, and the comprehension of the technology by the examiners. Once a patent is issued and all maintenance fees are paid, it is normally valid for 20 years from the initial filing date.

Why is some intellectual property protected through patenting?

Commercial partners, such as licensees, have to commit substantial investment to develop your invention to a marketable product. A patent offers them a monopoly. Due to the financial investment and time requirements to obtain a patent, not all inventions can be patented. As well, not all inventions require patent protection to be commercialized.

Who makes the decision regarding when to patent?

I+P will review the recommendations provided in the due diligence report and work on the development plan together with the inventor(s). The decision to patent will be part of this process and I+P will make a recommendation as to whether to file a patent application. If the inventor(s) are in disagreement with the patenting decision, they can pursue a dispute resolution process or ask that the rights to the invention be transferred to them such that they can subsequently pursue patent prosecution and commercialization of the invention themselves.

Is a licensee required for an invention to go through the patent process?

I+P may file a provisional patent application before a licensee has been identified. After entering into an exclusive license to the technology and the associated IP, the licensee pays the patenting expenses. However, I+P will stop prosecution at decision points identified in the development plan, especially if no parties show interest in licensing the invention.

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

These could be joint inventions and should be clearly identified as such in the Report of Invention disclosure. I+P will negotiate an inter-institutional agreement between the parties in order to establish the rights and responsibilities of each party.

What does "open source" mean?

Open source generally refers to software which can be freely used, modified or distributed.

What is an open source software license?

An open source license is a type of license that allows the software source code to be shared and used by others. There are two general approaches for these licenses: permissive and "copyleft". A permissive license has very few restrictions on how the source code can be used, modified and shared. Commercial activities are also permitted. The two most widely used licenses are the Berkeley Software Distribution (BSD) and the MIT Open source license. The other approach is a copyleft license which requires the subsequently modified source code to be made freely available as well, in other words, share and share alike. The most popular version of the copyleft license is GNU General Public License. More details are available here http://opensource.org/licenses.

Does making software available through an open source license preclude commercialization?

Not necessarily, it depends on the business model. Since the software source code is freely available, it is somewhat unlikely that you will find a buyer willing to pay for this same source code. However, if the business model is to provide services, a viable business is still possible.

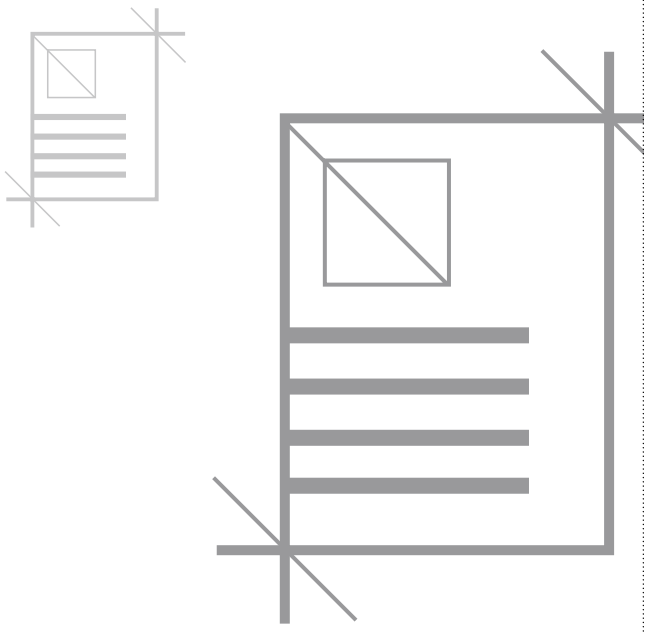
6. COPYRIGHTS AND TRADEMARKS

What is a copyright?

A copyright is the exclusive right to prevent others from making copies of an original work for an extended period of time. For instance, the owner of a copyright can prevent others from reproducing, distributing, performing in public or publishing the original expression of an idea, be it a literary, musical, dramatic or artistic work, or computer software. Any original literary, dramatic, musical or artistic work, or computer software, is automatically protected by copyright the moment it is created. When a work is created and/or stored in electronic format, the electronic version of the work is also protected by copyright. For McGill employees, the University is automatically granted a non-exclusive license to use for academic purposes any works produced during the course of your employment at the University.

How can I learn about McGill's copyright policies?

McGill's Policy on Copyright covers copyright issues.



How is copyright handled at McGill?

Once a work is fixed in some form, the author automatically owns copyright to the work in that form. This is subject to the following exceptions:

- The work was created as a result of research sponsored by a third party pursuant to a written agreement with the University, wherein copyright is determined by specific terms of the agreement
- The work was created pursuant to a formal agreement with the University, wherein copyright is determined by specific terms of the agreement
- The work contains software as the primary constituent. In such cases the work will be treated as software under the Policy on Inventions and Software
- The work is covered by a collective agreement, wherein copyright is determined by the specific terms of the collective agreement

The author is entitled both to determine how the work is to be disseminated and to keep any income derived from the work. If an author wants to disseminate a work with the assistance of McGill, he or she may contact I+P. If I+P agrees to assist with the dissemination of the work, the University will receive a portion of any revenues generated.

What is a trademark?

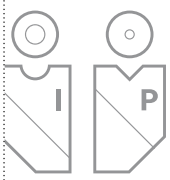
According to CIPO, "trademarks may be one or a combination of words, sounds or designs used to distinguish the goods or services of one person or organization from those of others in the marketplace. Trademarks come to represent not only the actual goods or services, but also the reputation of the producer. As such, trademarks constitute valuable intellectual property."

What do I need to be aware of to pursue the trademark process?

I+P does not get involved in the process of filing a trademark.

7. THE TECHNOLOGY TRANSFER PROCESS

I+P's technology transfer team is composed of specialists in science, business development, entrepreneurship, commercialization and technology mobilization. The team supports knowledge and technology transfer, and serves the needs of all of McGill's Faculties and affiliated hospitals.



How does I+P assess my invention?

Generally speaking, I+P's technology transfer team seeks to engage researchers in informal, on-going discussions during their research endeavours to help identify potential inventions proactively. Once a Report of Invention is submitted to I+P, this initiates a phased assessment process.

- The first phase is to ensure that no third party has rights to the technology and then to conduct a review of the scientific and patent literature surrounding the invention to determine if there has been any previous work that could make your invention ineligible for protection.
- The second phase is to determine whether it is appropriate to pursue intellectual property protection, usually in the form of a patent or copyright, and particularly whether such protection could be enforced. High litigation potential is generally seen as a deterrent to pursuing IP protection.
- The third phase involves analyzing market conditions to determine:
  - Whether your invention meets a significant market need
  - Who the key players are in the market
  - What other similar or related products are available or in development

With these phases complete, the TTM will work closely with you to create an appropriate development plan, and will discuss the options for licensing the technology. Typically, the inventor has a choice between licensing the technology or creating a startup company.

You and your TTM will work to develop the invention and review progress at key milestones, such as stages in the patenting process. The decision about whether to proceed with commercialization or not will involve several "go, no-go" decisions, including:

- Likelihood of commercial success
- Strength of the potential patent claims and their enforceability
- Openness of the market
- Cooperation of the inventor

What if I disagree with I+P's assessment about the commercial potential of my invention? Can I pursue commercialization on my own?

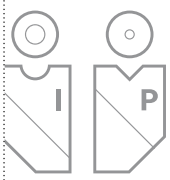
Yes, you can opt to pursue commercialization on your own if I+P has decided not to participate in the commercialization of your invention. You can also indicate up front that you wish to commercialize your invention yourself without any assistance from the University. In this case, the University can assign its rights to the inventor(s) which will allow them to pursue commercialization activities without McGill's input. This is covered in section 6.3 of the Policy on Inventions and Software.

What if I am interested in offering my invention non-exclusively to all potential users for the public good?

This is part of the academic freedom enjoyed by all McGill researchers. Inventions must be reported solely if the inventor(s) want to see them commercialized. This is clearly stated in Policy on Inventions and Software (Section 6.2). It is your right to decide if you want to share your discoveries with the world without pursuing commercialization.

Can I still commercialize my software if it was developed under an open source license?

Using open source software imposes limitations that have to be taken into consideration when thinking about commercialization. I+P can offer guidance in this regard.



8. COMMERCIALIZATION

What activities constitute commercialization?

Once the invention is reported to I+P and assessed for its commercial potential, commercialization activities include:

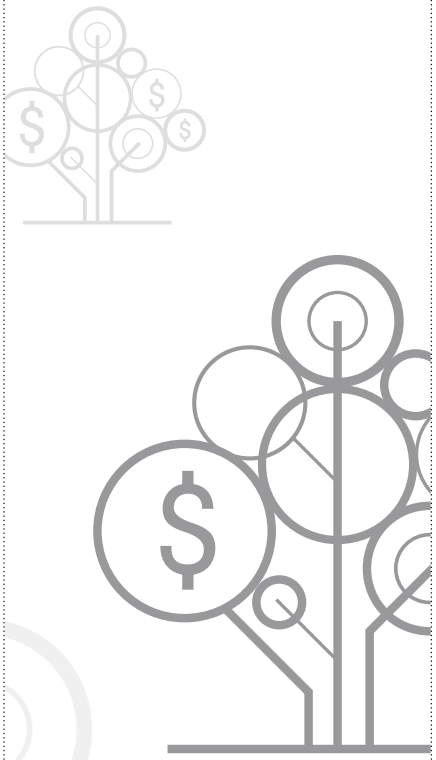
- Intellectual property protection, potentially including patent applications or copyright
- Marketing of the technology via public disclosures (Note that these should be done after the intellectual property protection has been established)
- Identifying and contacting companies for discussions regarding their commercial interest in the invention
- Negotiating agreements with the companies, including non-disclosure agreements, Material Transfer Agreements, memoranda of understanding, options, or licenses

I+P's technology transfer team will work with you to tailor the process to the specifics of each invention and commercial opportunity.

What is the inventor's role during commercialization?

The role of the inventor(s) during the commercialization process is to work with I+P's technology transfer team to identify potential partners and be the technical resource in discussions with commercial parties. Companies will be contacted to gauge their interest in obtaining rights to the invention, and the inventor(s) are required to provide the necessary technical knowledge. It is not uncommon for the inventor(s) to have already established contact with interested companies or to be contacted directly by companies seeking access to their technology. In such instances, I+P should be brought in as soon as possible to support the commercial portion of these discussions.

In addition, inventors play a key role during prosecution of patent applications by providing their technical knowledge to reply to any objections that may be raised by the patent office's examiners.



What revenues are generated for McGill if commercialization is successful?

If an invention is licensed and provides financial returns for the company, revenue is generated for McGill and the inventor(s). These revenues are shared amongst the inventor(s) and McGill according to the Guidelines on the Application of the Policy on Inventions and Software. Examples of revenue streams include:

- A one-time licensing fee
- An annual licensing fee
- Annual royalties based on revenue or sales volumes, including a minimum annual royalty
- Milestone payments for achieving agreed-upon commercialization targets
- Equity (usually for a start-up, becomes revenue upon the sale of the company)

Note that the specific terms in a license agreement are negotiated on a case-by-case basis. There is no universal set of conditions that applies for all licenses, and some of these revenue streams may not be relevant or appropriate for the specific license. I+P's technology transfer team is best suited to determine appropriate licensing terms.

Please note that the University only distributes revenues to the inventor(s) once its costs specifically related to the protection, licensing, distribution, and administration of the invention or software are covered.

What are royalties and how do they work?

A royalty is a payment that is based on the revenues generated from product sales where the product makes use of the licensed invention. The royalty can be based on a percentage of net sales of the product or it can be a flat fee per unit sold. Royalties are calculated on a quarterly or annual basis and paid by the company licensing the invention to McGill; they are then divided between the inventors and McGill per the terms in the Guidelines on the Application of the Policy on Inventions and Software. The length of time that royalties are paid generally corresponds to the lifetime of the patent for the invention, but can also be for other fixed periods. All the terms related to royalty payments are defined as part of a license agreement, which is negotiated and signed by both McGill and the company.

What will happen to an invention if the start-up company or licensee is unsuccessful? Can the invention be licensed to another entity?

I+P ensures that the University has the right to terminate a license if the start-up company or licensee ceases operations or fails to perform per the agreed-upon terms in the agreement. In such instances, the invention is generally returned to McGill and we can license it to another entity.

Can a patent be assigned by McGill to the company licensing the technology?

This is a common request from start-ups, who want the patents to be in the name of the company as the assignee. It is possible for McGill to assign the patent(s) to the company, but generally only after the start-up has shown solid financial backing and has generated a credible business plan with projected revenues.

9. LAUNCHING A START-UP

Why create a start-up?

There are generally two paths for bringing new inventions to market: licensing to an existing company or creating a start-up. For many inventions, a commercial partner can be identified, making a licensing approach more appropriate. However, when the invention addresses an emerging market or is radically different from the existing solutions, forming a start-up may be the best approach.

Many inventors wish to launch a start-up to commercialize their technology. They are motivated by the opportunity to continue to work closely with their invention and/or their students, a desire to experience the adventure of running a start-up, a belief that their involvement is essential to the commercial success of the technology, and a wish to exert control over the direction of the technology development. Many of the graduate students who are inventors of the technology see being involved with a start-up as a viable career option and would like to bring their research to commercial reality. Such student inventors often make excellent Chief Technical Officers in the company.

Who decides whether to form a start-up?

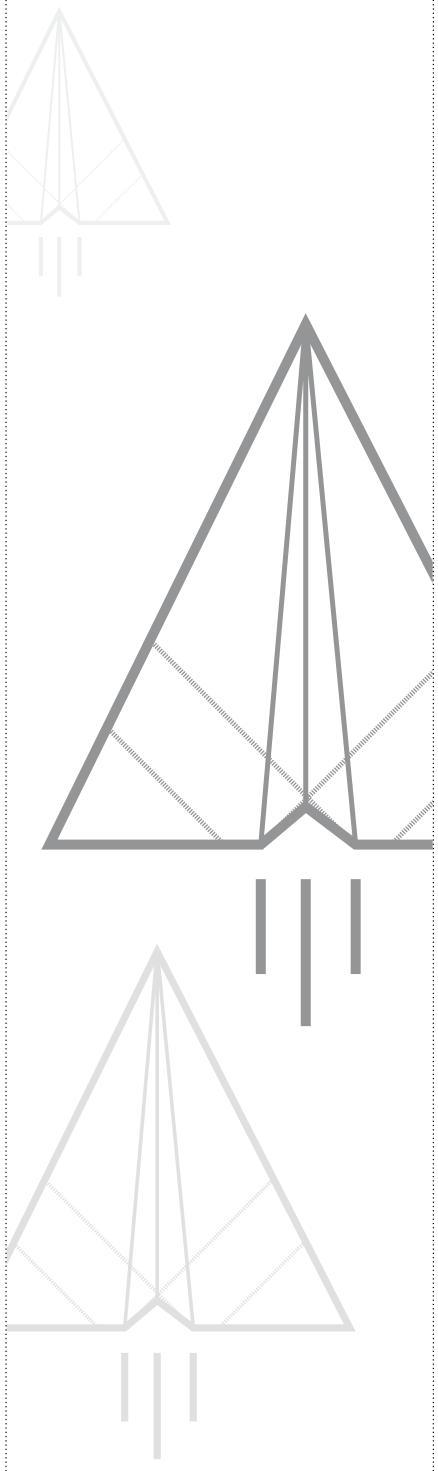
While I+P can provide an opinion, ultimately the decision remains with the inventor(s).

Where can I find information about support available from McGill and its partners for launching start-ups?

Apart from I+P, the Dobson Centre for Entrepreneurship is an excellent local resource for start-up mentoring and has potential funding opportunities through its competitions. For technology-based business concepts, the Faculty of Engineering offers the Engine Centre, which can provide funding and advice for prospective entrepreneurs. Several Faculties at McGill also have local initiatives to assist start-ups.

Where can I get funding?

There are a growing number of funding sources available for McGill entrepreneurs, through our Faculties and through our external partners. Check with I+P for some potential funding suggestions.

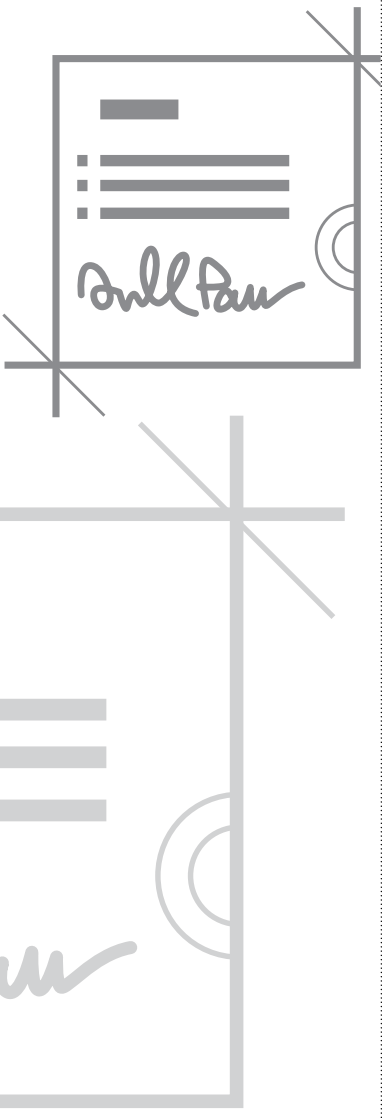


10. AGREEMENTS

The commercialization process is supported by numerous types of agreements. Some examples include Non-Disclosure Agreements (NDAs), also called Confidential Disclosure Agreements (CDAs), Material Transfer Agreements (MTAs), Inter-Institutional Agreements (IIAs), option agreements and license agreements.

What is a license agreement?

A license agreement is an agreement allowing a company to use your technology to make and sell a product. Regardless of whether the license is exclusive or non-exclusive, your right to use your technology in your research and teaching will always be preserved. The license describes the licensee's obligation to prosecute and maintain the patents, the process by which patent infringement will be managed, the milestones that the licensee is required to fulfill during the further development of the technology to a product, the conditions under which the agreement can be terminated, and the financial terms. Licenses can also outline research agreements where the aim is to develop the technology to a point where the resulting intellectual property may be included within the license agreement.



How is a licensee selected?

The TTM assigned to your invention will conduct market research to identify potential corporate partners. Inventors themselves are often a source of valuable information regarding industry contacts who may wish to become licensees. The two most important factors in determining whether the technology can be developed through a license is the licensee's access to capital to advance your technology and its commitment to generating a product based on your intellectual property. It is imperative that technologies that can benefit society reach the market and are not shelved by the company. Performance milestones and license maintenance fees are designed to incentivize licensees to develop the technology into a product as swiftly as possible.

How are most licensees found?

Potential licensees can be identified during I+P's evaluation process through market research and patent analyses. Potential licensees are often identified at meetings, trade shows or conferences. In many instances, it is the inventor who identifies appropriate licensees.

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

If a licensed technology requires further research, the licensee might engage the inventor in sponsored or contract research and project-related consulting. As soon as the license generates revenues and all commercialization costs are recovered, the inventor(s) will receive payments from McGill based on the terms negotiated in the agreement and the distribution rules provided in the Guidelines on the Application of the Policy on Inventions and Software and the relevant Report of Invention.

What is an option and how does it work?

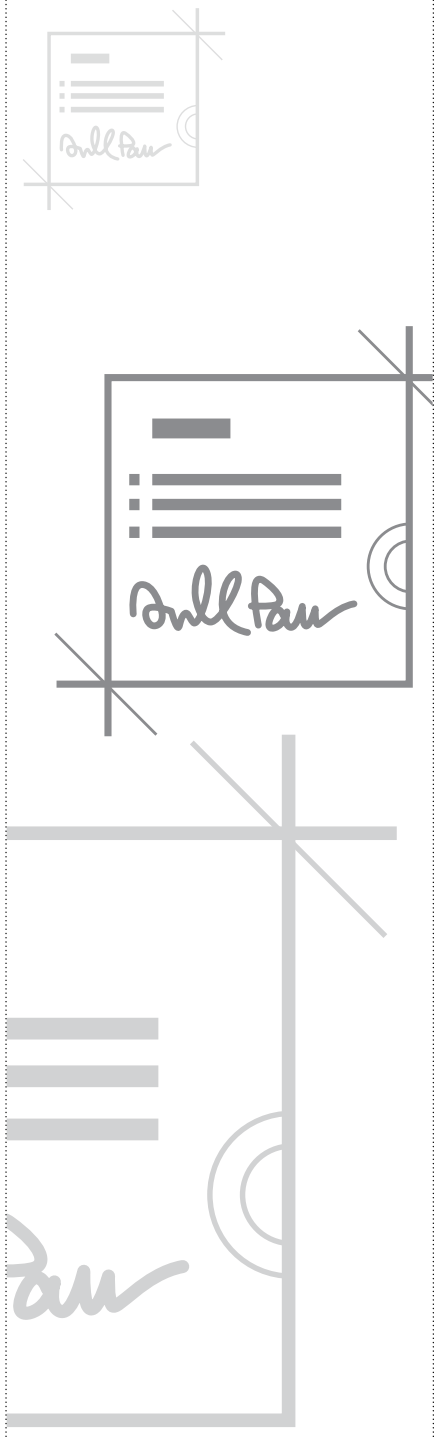
Often as a first step before licensing a technology, a company will sign an "option" to license the technology. An option gives the company a time-restricted right to explore the technology and subsequently negotiate the terms of a license. The technology cannot be offered to any other potential licensee during the term of the option agreement.

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

The relationship between an inventor and the licensee depends on the maturity of the technology at the time of the license and the interest of the inventor. The more research and development that must be completed before the technology is ready to take to market, the more involved the inventor is likely to be with the licensee, through consulting engagements or research contracts. Students and post-doctoral fellows who are co-inventors can also be hired by the licensee to continue work on the invention to bring it to market.

How does I+P market my invention to potential licensees?

A non-confidential summary of your technology is posted on the I+P website, uploaded to licensing and collaboration websites, or presented at relevant conferences with a focus on technology commercialization. As an inventor, you can also assist with the marketing process by identifying corporate scientists at conferences, and collecting contact information from their business development colleagues so that I+P can follow up.



What are non-disclosure agreements (non-disclosure agreement, confidential disclosure agreement)?

When I+P wants to present your technology to a potential licensee and provide more detail than is contained in the non-confidential summary, the first step to any discussion between the licensor (McGill, representing you), and the licensee (the company that might develop your technology to a product) is a non-disclosure agreement (NDA).

An NDA identifies the discloser of the information and the recipient, and defines what is considered confidential information, who is allowed to know about it, and how long the information must be kept confidential. Note that NDAs must be officially signed by McGill; the inventor can acknowledge the agreement but is not in position to sign on behalf of the University.

What is a Material Transfer Agreement (MTA)?

In the event that an optionee or licensee wishes to test any material component of your invention (e.g., a new chemical entity), its transfer should be protected by an MTA. This basic contract should also be in place when you exchange material with scientific colleagues, as it declares your material to be your intellectual property. Any inventions that your scientific colleagues derive from your material that also includes your material cannot be used without you and your licensee's explicit permission. An MTA also contains a clause requiring your colleagues to report any inventions that they made by means of your material. These agreements specify that your colleagues must agree to provide you with their derived material under a royalty-free license. Any material that you develop can also be made available for a fee to interested companies, even if it is not protected. This can be accomplished through an MTA.

What are inter-institutional agreements?

When an inventor submits a Report of Invention that includes non-McGill co-inventors, and I+P has assessed the patentability and commercial potential of the invention, the next step is to negotiate with the institutions of your non-McGill co-inventors. Key points to negotiate include which institution will lead the patent prosecution and the commercialization process, how revenues and costs will be shared among the institutions, and, whether the lead institution will receive administration fees from the non-leading institution(s). These non-McGill co-inventors and institutions will have to be named on the patents linked to your invention, and become assignees. This is particularly important for inventions that that have U.S.-based co-inventors, as assignees may have the right to develop the technology independently of one another.