

Faculty and Inventor's Guide to Technology Transfer

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I. Overview to Technology Transfer.....	2
What is it, and how does it work?.....	2-3
II. Technology Transfer Process.....	4
What is the process by which technology is transferred, and how long does it take?.....	4-6; 6
How might I, the Inventor, help with this process?.....	4-6; 6
III. Research Considerations.....	7
What are the legal issues involved with my research project?.....	7-9
What rights do I have with respect to the research?.....	9
IV. Invention Disclosures.....	10
What is an invention disclosure, and why is it important?.....	10
When should I submit an Invention Disclosure? How do I submit one?.....	10; 11
V. Ownership of Intellectual Property.....	12
Who owns what I create?.....	12
VI. Assessment of an Invention Disclosure.....	14
How will the SJTP determine whether or not to file a patent application for my invention?.....	14
What happens if the SJTP elects not to file a patent application?.....	14
VII. Patents and Other Legal Protection.....	15
What is a patent? What is the process needed to get one? How long will it take and at what cost?.....	15; 16-18; 18-19
I realize that proper Inventorship is critical, but how do I know who qualifies as an inventor and who doesn't?.....	15
VIII. Considerations for a Start-Up Company.....	22
IX. Marketing to Find a License.....	24
X. Licenses and Other Agreements.....	26
What do I need to know when my technology is licensed to third parties?.....	26-27
XI. Commercialization.....	28
What must I know when the technology begins to be commercialized?.....	28
XII. Navigating Conflicts of Interest.....	29
What is a conflict of interest? What should I do about potential conflicts?.....	29
XIII. Revenue Distributions.....	30
How are revenues distributed between the school and the Inventors?.....	30
Contact Information.....	31

OVERVIEW TO TECHNOLOGY TRANSFER

What is Technology Transfer?

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

What is the South Jersey Tech Park?

The South Jersey Tech Park is a University auxiliary unit composed of specialists in licensing, business development, and legal matters whom are experienced in transferring technologies from the physical sciences, life sciences, and information and computer sciences to the public. The South Jersey Tech Park also house the Rohrer College of Business new business incubator. The Research Office located within the SJTP is responsible for managing invention disclosures from all of Rowan's colleges.

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

The reasons are unique to each researcher and may include:

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

How is Technology Transferred?

Technology is typically transferred to the public through a license agreement in which the University grants its rights in the defined technology to a third party for a period of years, often limited to a particular field of use and/or region of the world. The licensee (the third party licensing the technology) may be an established company or a new business start-up. Licenses include terms that require the licensee to meet certain performance requirements and to make financial payments to the University. These payments are shared with the inventors and are also distributed to the schools/colleges, departments/units, and central administration to provide support for further research, education, and participation in the tech transfer process.



What is the Bayh-Dole Act?

The U.S. Bayh-Dole Act of 1980 allows universities and other non-profit institutions to have ownership rights to discoveries resulting from federally funded research, provided certain obligations are met. These obligations include making efforts to protect (when appropriate) and commercialize the discoveries, submitting progress reports to the funding agency, giving preference to small businesses that demonstrate sufficient capability, and sharing any resulting revenues with the inventors. The Bayh-Dole Act is credited with stimulating interest in tech transfer activities and generating increased research, commercialization, educational opportunities, and economic development in the United States.

The South Jersey Tech Park



Note

*Throughout this manual, unless specifically described otherwise, the term inventor includes individuals listed on a patent as well as contributors who have shared in creating the value of intellectual property that is not patented.

THE TECHNOLOGY TRANSFER PROCESS

How do I work with the Research Office? 2. Pre-Disclosure

We encourage you to contact the Research Office during your early research activities to be aware of the options that will best leverage the commercial potential of your research. Furthermore, the Tech Park will provide you with critical information about how to prevent your rights in the developing technology from being compromised. Our Tech Transfer staff are trained to assist you with questions related to marketability, funding sources, commercial partners, patenting and other protection methods, new business start-up considerations, University policies and procedures, and much more.

What are the typical steps in the process?

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

I. Research

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

An early contact with the Research Office personnel to discuss your invention and to provide guidance with respect to the disclosure, evaluation, and protection processes described below.

3. Invention Disclosure

The completed invention disclosure application to the Research Office begins the formal technology transfer process. An invention disclosure remains a confidential document and should fully document your invention so that the options for commercialization can be evaluated and pursued.

4. Assessment

The period in which you and the South Jersey Tech Park review the invention disclosure, conduct prior art searches (if applicable), and analyze the market and competitive technologies to determine the invention's commercialization potential.

This evaluation process, which may lead to a broadening or refinement of the invention, will guide our strategy on whether to focus on licensing to an existing company or creating a new business start-up.

5. Protection

The process in which protection for an invention is pursued. Patent protection, a common legal protection method, begins with the filing of a patent application with the U.S. Patent Office and, when appropriate, foreign patent offices. Once a patent application has been filed, it will typically require 1-5 years and tens of thousands of dollars to issue in the United States and abroad. Other protection methods include copyright, trademark, trade secrets, and contractual use restrictions (e.g., for databases and materials).

6. Marketing

With your active involvement, the South Jersey Tech Park staff identify candidate companies that have the expertise, resources, and business networks to bring the technology to market. This may involve partnering with an existing company or forming a start-up. Your active involvement can dramatically shorten this process.

7a. Forming a Start-up Company

If creation of a new business start-up has been chosen as the optimal commercialization path, South Jersey Tech Park business development specialists will work as business formation consultants to assist in planning, forming, and funding the start-up.

7b. Existing Business

If an appropriate and interested existing company, or companies, are selected as a potential licensee, Research Office licensing specialists work with those potential licensees to develop the appropriate financial and diligence terms to fully commercialize the technology.

8. Licensing

A license agreement is a contract between the University and a third party in which the University's rights to a technology are licensed, without relinquishing ownership, for financial and other benefits. A license agreement is used with both a new start-up business or with an established company. An option agreement is sometimes used to enable a third party to evaluate the technology for a limited time prior to making a decision about licensing.

9. Commercialization

The licensee continues the advancement of the technology and makes other business investments to develop the product or service. This step may entail further development, regulatory approvals, sales and marketing support, training, and other activities.

10. Revenues

Revenues received by Rowan University from licenses are split 50/50 between the Inventor(s) and the University.

Revenues retained by Rowan University are distributed to schools, colleges, departments, units, central administration, and inventors to fund additional research and education and to encourage further participation in the tech transfer process.

How long does the tech transfer process take?

The process of protecting the technology and finding the right licensing partner may take years to complete. The amount of time will depend on the development stage of the technology, the market for the technology, competing technologies, the amount of work needed to bring a new concept to market-ready status, the application process with the United States Patent and Trademark Office, and the resources and willingness of the licensees and the inventors.

How can I help in this process?

- Call the Research Office at 856.256.5482 when you believe you have created or discovered something unique with potential commercial or research value.
- Complete and submit the Invention Disclosure Application before publicly disclosing your technology or submitting a manuscript for review and publication.

- To avoid compromising your patent rights and possibly hindering the opportunity to market your invention, contact the Research Office before holding any discussions with people outside of your research and development group.
- On the Invention Disclosure Application, include companies and contacts you believe might be interested in your invention. Also include any company that you may have already contacted about your invention along with the earliest known date of contact. This is a critical element when it comes time to protect the technology. Studies have shown that over 70% of all licenses are executed with commercial entities known by the inventor, so your contacts can be extremely useful.
- Respond to staff and outside patent counsel requests. While some aspects of the patent and licensing process does require significant participation on your part, we will strive to make efficient use of your valuable time.
- Keep the Research Office informed of upcoming publications or interactions with companies related to your intellectual property.



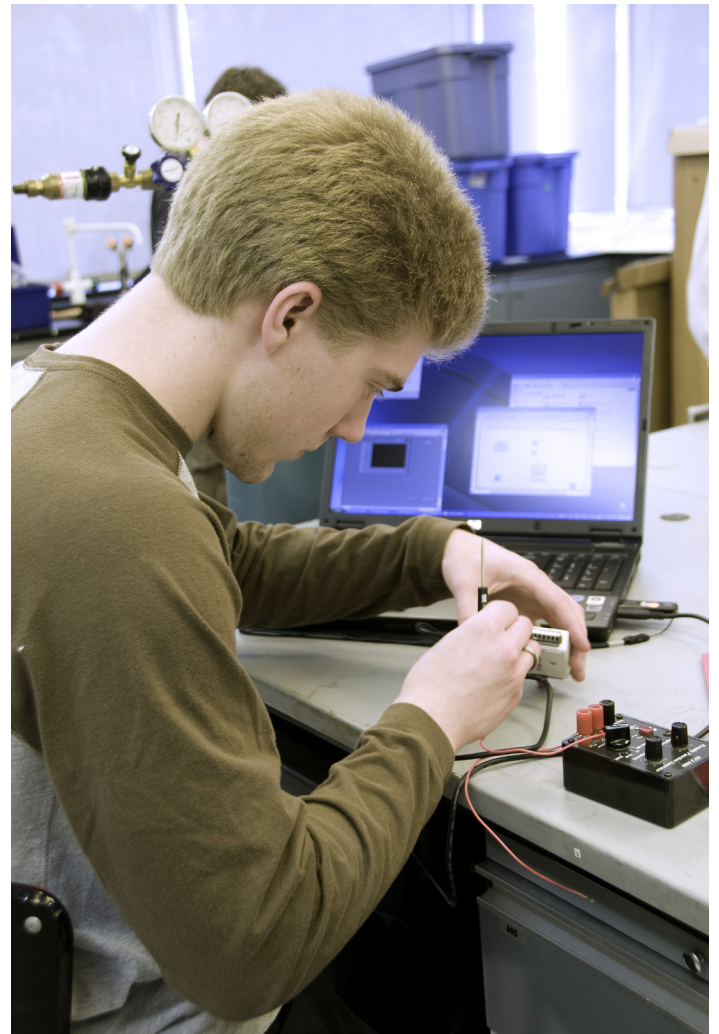
RESEARCH CONSIDERATIONS

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

Yes, but since patent rights are heavily affected by these activities, it is best to submit an Invention Disclosure (discussed in next section) well before communicating or disclosing your invention to people outside your Research Group. There are significant differences between the U.S. and other countries as to how early publication affects a potential patent. Furthermore, the new America Invents Act, which will become fully effective on March 16, 2013, has very important ambiguities that will not be resolved until the statute is reviewed by the United States Court of Appeals for the Federal Circuit, or by the Supreme Court. Once publicly disclosed (published or presented in some form), an invention may become entirely unpatentable, regardless of novelty or utility. Be sure to inform the Research Office of any imminent or prior presentation, lecture, poster, abstract, website description, research proposal submission, dissertation/masters thesis, publication, or other public presentation including the invention.

Note

*The America Invents Act was signed into law by President Obama on September 16, 2011. Its provisions become fully operable on March 16, 2013, and include sweeping changes to the requirements for patentability in the United States. Considerable case law will be required before we can know which invention disclosures *by the inventor* will be permitted before filing a patent application.



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

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

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

Yes. However it is important to document items that are to be shared with others and the conditions of use. If you wish to send materials to an outside collaborator, an outgoing Material Transfer Agreement (MTA) should be completed for this purpose. It also may be necessary to have a Confidentiality Agreement completed to protect your research results or intellectual property.

Rowan Hall - The College of Engineering



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

The Sponsored Research Agreement should specify the intellectual property (IP) rights of the sponsor. Rowan University retains ownership of the patent rights and other intellectual property rights resulting from sponsored research. However, the sponsor may have rights to obtain a license to the defined and expected outcomes of the research. Often, sponsored research contracts allow the sponsor a limited time to negotiate a license for any patent or intellectual property rights developed as the result of the research. Even so, the sponsor generally will not have contractual rights to discoveries that are clearly outside of the scope of the research. Therefore, it is important to define the scope of work within a research agreement.

What About Consulting?

When researchers enter into consulting agreements, they are deemed to be acting outside of the scope of their employment. Therefore consulting arrangements are not negotiated by the University nor formally reviewed by the Research Office. Researchers who enter into consulting agreements should familiarize themselves with the policies of their school or college relevant to consulting activities. The researcher is expected to ensure that the terms of the consulting arrangement are consistent with University policies, including those related to IP ownership, employment responsibilities and use of Intellectual Property. The Research Office is available to provide informal advice on how your consulting agreement relates to your Rowan University Intellectual Property.



INVENTION DISCLOSURES

What is an Invention Disclosure?

An Invention Disclosure (ID) is a written description of your invention or development that is provided to the SResearch Office. The ID should list all collaborating sources of support and include all of the information necessary to begin pursuing protection, marketing, and commercialization activities.

This document will be treated as “University Confidential.” Based on the Invention Disclosure, the Research Office may generate a non-confidential description of your invention in order to assist in marketing the technology. Once potential partners have been identified, and confidentiality agreements have been signed, more detailed exchanges of information can be made.

Why submit an Invention Disclosure?

When you disclose your invention to the Research Office, it starts a process that could lead to the commercialization of your technology. This may involve beginning the legal protection process and working to identify outside development partners. If government funds were used for your research, you are required to file a prompt disclosure, which will be reported to the sponsoring agency. Similar requirements may exist for other sponsored projects.

How do I know if my discovery is an invention?

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

When should I complete an Invention Disclosure?

You should complete an Invention Disclosure whenever you feel you have discovered something unique with possible commercial value. This should be done well before presenting the discovery through publications, poster sessions, conferences, press releases, or other communications. Once publicly disclosed (i.e., published or presented in some form), an invention may become entirely unpatentable, regardless of novelty or utility. Differences exist between the U.S. and other countries on the impact of early publication on a potential patent. Be sure to inform the Research Office of any imminent or prior presentation, lecture, poster, abstract, website description, research proposal, dissertation/masters thesis, publication, or other public presentation including the invention.

Should I disclose research tools?

Yes, if your new tools would benefit other researchers and you are interested in providing them to those researchers and other third parties. Typically, research tools are materials such as antibodies, vectors, plasmids, cell lines, mice, and other materials used as “tools” in the research process. Most research tools do not necessarily need to be protected by patents in order to be licensed to commercial third parties and/or generate revenue for your laboratory. If you have research tools that you believe to be valuable, or wish to provide to others (including research collaborators), the Research Office will work with you to develop the appropriate protection, licensing, and distribution strategy.

How do I submit an Invention Disclosure?

You can download a disclosure form and simple instructions from http://www.rowan.edu/open/provost/research/techtransfer/invention_disclosure/index.cfm. If you have any questions, call the Director of Technology Transfer, Sarah Piddington at 856.256.5482.



OWNERSHIP OF INTELLECTUAL PROPERTY

What is “intellectual property”?

Intellectual property is inventions and/or material that may be protected under the patent, trademark and/or copyright laws, and sometimes by contract.

Who owns what I create?

Ownership depends upon the employment status of the creators of the invention and their use of Rowan University’s facilities.

Considerations include:

- What is the source of the funds or resources used to produce the invention?
- What was the employment status of the creators at the time the intellectual property was made?
- What are the terms of any agreement related to the creation of the intellectual property?

As a general rule, Rowan University owns inventions made by its employees while acting within the scope of their employment or using Rowan University resources. Rowan University’s copyright policy describes the applicable rules for copyrightable works (<http://www.rowan.edu/open/provost/research/documents/RowanIP-Policy2007-2.pdf>). In some cases, the terms of a Sponsored Research Agreement or Materials Transfer Agreement may impact ownership. When in doubt, it is best to call the Research Office for advice.

What is Rowan’s policy on ownership of inventions?

Inventions discovered while acting within the scope of employment at Rowan University or while using Rowan University resources are under an obligation of assignment to Rowan University. Failing to assign such an invention and thereafter capitalizing on it could subject the inventor to liability.

Who owns rights to discoveries made while I am consulting?

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

Who owns rights to discoveries made while on sabbatical?

Generally, if you are on a sabbatical paid by the University, Rowan still retains rights to any discoveries connected to your scope of employment. Contact the Research Office before your sabbatical to ensure that ownership considerations are documented.

Should I list visiting scientists or scientists at other institutions on my Invention Disclosure?

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

Can a student contribute to an invention?

Yes, many students work on inventions at Rowan University under a wide variety of circumstances. Rowan aggressively promotes student entrepreneurship, and students can be named as Inventors under Rowan Technology Transfer Policy. Typically, a student will own his or her rights to an invention unless the invention was created by a student in a capacity as a Rowan employee and/or the student used more than incidental Rowan resources. Contact the Research Office for more details.



ASSESSMENT OF AN INVENTION DISCLOSURE

How does the Research Office assess Invention Disclosures?

The Research Office is overseen by an IP Committee which is responsible for, among other things, making financial decisions. Specialists from the IP Committee will examine each invention disclosure to review the novelty of the invention, protectability and marketability of potential products or services, relationship to related intellectual property, size and growth potential of the relevant market, amount of time and money required for further development, pre-existing rights associated with the intellectual property (IP), and potential competition from other products/technologies. This assessment may also include consideration of whether the intellectual property can be the basis for a new business start-up.

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

The Research Office will work with you to develop the appropriate commercialization strategy for the invention. Some technologies lend themselves to non-exclusive licensing (licensing to multiple third parties), while others will only reach the commercial marketplace, and therefore the public, if they are licensed on an exclusive basis.

We will try to accommodate inventors' commercialization wishes. However, the final decision will be determined by our assessment of which strategy will produce the most benefits for the general public, consistent with governmental or institutional policies and other obligations.

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

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

Will the Rowan University ever reassign an invention to an Inventor?

If the IP Committee decides not to pursue patent protection and/or chooses not to actively market the invention, the University may transfer ownership to the inventor(s). Reassignment of inventions funded from U.S. government sources requires the government's prior approval.

PATENTS & OTHER LEGAL PROTECTION

What is a patent?

In the U.S., a patent gives the holder the right to exclude others from making, using, selling, offering to sell, and importing the patented invention. A patent does not necessarily provide the holder any affirmative right to practice a technology since it may fall under a broader patent owned by others. Instead, it provides the right to exclude others from practicing the invention. Patent claims are the legal definition of an inventor's protectable invention.

What can be patented?

Patentable subject matter typically includes processes, machines, compositions of matter, articles, some computer programs, and methods (including methods of making compositions, methods of making articles, and even methods of performing business).

Can someone patent a naturally occurring substance?

Generally, no. A natural substance that has never before been isolated or known may be patentable in some instances, but only in its isolated form (since the isolated form had never been known before). A variation of a naturally occurring substance may be patentable if an inventor is able to demonstrate substantial non-obvious modifications that offer advantages of using the variant.

What is the United States Patent and Trademark Office (PTO)?

The PTO is the federal agency, organized under the Department of Commerce, that administers patents on behalf of the government. The PTO employs patent examiners skilled in all technical fields in order to appraise patent applications. The PTO also issues federal trademark registrations.

What is the definition of an inventor on a patent?

An Inventor is defined as one who contributes to the conception of an invention. Conception is the complete performance of the mental part of the inventive act. It is the formation in the mind of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied to practice. Individuals working under the direction of the Inventor who did not also contribute to conception are not considered to be inventors.

Who is responsible for patenting?

The IP Committee and Research Office contracts with outside patent counsel for IP protection, thus assuring access to patent specialists in diverse technology areas. Inventors work with the patent counsel in drafting the patent applications and responses to worldwide patent offices. Research Office staff will help with the selection and oversight of the outside patent counsel.

What is the patenting process?

Patent applications are generally drafted by a patent attorney or a patent agent (a non-attorney with a science education licensed to practice by the PTO). The patent attorney generally will ask you to review an application before it is filed and will also ask you questions about inventorship of the application claims. At the time an application is filed, the patent attorney will ask the inventor(s) to sign an Inventor's Declaration and an Assignment, which evidences the inventor's duty to assign the patent to the University.

In about one year or longer, depending on the technology, the patent attorney will receive written notice from the PTO as to whether the application and its claims have been accepted in the form as filed. More often than not, the PTO rejects the application because either certain formalities need to be cleared up, or the claims are not patentable over the "prior art" (anything that workers in the field have made or publicly disclosed in the past). The letter sent by the PTO is referred to as an Office Action or Official Action.

If the application is rejected, the patent attorney must file a written response, usually within three to six months. Generally the attorney may amend the claims and/or point out why the PTO's position is incorrect.

This procedure is referred to as patent prosecution. Often it will take two PTO Official Actions and two responses by the patent attorney—and sometimes more—before the application is resolved. The resolution can take the form of a PTO notice that the application is allowable; in other words, the PTO agrees to issue a patent. During this process, input from the inventor(s) is often needed to confirm the patent attorney's understanding of the technical aspects of the invention and/or the prior art cited against the application. The PTO holds patent applications confidential until published by the PTO, 18 months after initial filing.

Is there such a thing as a provisional patent?

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



What is the difference between a provisional patent application and a regular patent application?

U.S. provisional patent applications allow inventors to acquire the all important filing date at a reduced cost. This occurs because the application is not examined during the year in which it is pending and claims are not required. A regular U.S. application and related foreign applications must be filed within one year of the provisional form and thereafter properly claim priority in order to receive its early filing date. This gives the inventor an additional 12 months to assess the commercial value of the invention, and decide whether or not to pursue a non-provisional application without settling for a later filing date. However, an applicant only receives the benefit of the earlier filing date for material that is *adequately described and enabled* in the provisional application. As a result, the patent attorney may need your assistance when an application is filed as a provisional.

Note

*American patent laws will shift to a 'first to file' type system on March 16, 2013. From this point on it will be of utmost importance to acquire the earliest possible filing date for an invention. Provisional applications, while already prevalent, will become even more important to inventors in the future.

What's different about foreign patent protection?

Foreign patent protection is subject to the laws of each individual country, although in a general sense the process works much the same as it does in the United States. In foreign countries, however, an inventor will lose any patent rights if he or she publicly discloses the invention prior to filing the patent application. In contrast, the United States currently has a one-year grace period. The America Invents Act, which becomes fully operable on March 16, 2013, has several ambiguities which on their face seem to preserve the traditional grace period for disclosures made *by the inventor*, but the legal interpretation of these ambiguities will not be known until the United States Court of Appeals for the Federal Circuit or the US Supreme Court provides specific case law. As a result, the state of patent law in the United States is up in the air for the foreseeable future.

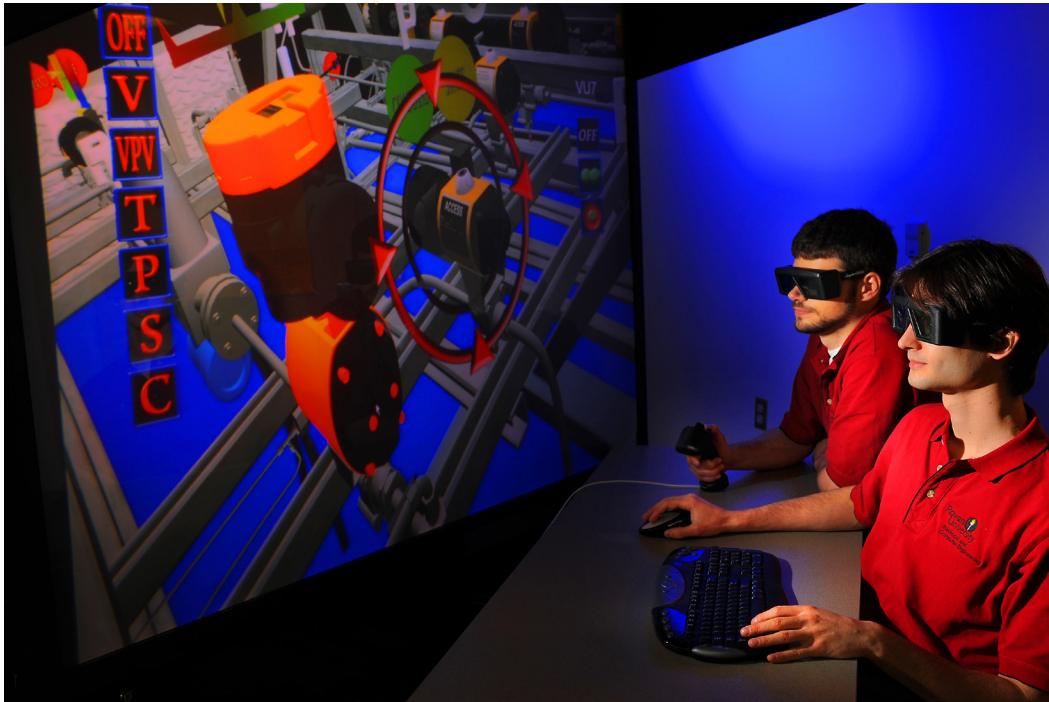
Is there such a thing as an international patent?

Although an international patent does not exist, an international agreement known as the Patent Cooperation Treaty (PCT) provides a streamlined filing procedure for most industrialized nations. For U.S. applicants, a PCT application is generally filed one year after the corresponding U.S. application (either provisional or regular) has been submitted. The PCT application must later be filed in the national patent office of any country in which the applicant wishes to seek patent protection, generally within 30 months of the earliest claimed filing date. The PCT provides two advantages. First, it delays the need to file costly foreign applications until the 30-month date, often after an applicant has the opportunity to further develop, evaluate and/or market the invention for licensing. Second, the international preliminary examination often allows an applicant to simplify the patent prosecution process by having a single examiner speak to the patentability of the claims, which can save significant costs in prosecuting foreign patent applications.

An important international treaty called the Paris Convention permits a patent application filed in a second country (or a PCT application) to claim the benefit of the filing date of an application filed in a first country. However, pursuant to this treaty, these so-called “convention applications” must be filed in foreign countries (or as a PCT) within one year of the first filing date of the U.S. application.

What is the timeline of the patenting process and resulting protection?

Currently, the average U.S. utility patent application is pending for about two years, though inventors in the biotech and computer fields should plan on a waiting period of up to 5 years. Once a patent is issued, it is enforceable for 20 years from the initial filing of the application that resulted in the patent, assuming that PTO-mandated maintenance fees are paid. The PTO has protocols which may extend or reduce the term of the patent for prosecution delays, depending on the party at fault and why.



SJTP's Virtual Reality Lab

Who decides what gets protected?

The IP Committee and the inventor(s) consider relevant factors in making recommendations about filing patent applications. Based on a recommendation from the Research Office specialists, the IP Committee ultimately makes the final decision as to whether to file a patent application or seek another form of protection.

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

Filing a regular U.S. patent application may cost between \$10,000 and \$20,000. To obtain an issued patent may require an additional \$10,000 to \$15,000 for patent prosecution. Filing and obtaining issued patents in other countries may cost \$20,000 or more per country. Also, once a patent is issued in the U.S or in foreign countries, certain maintenance fees are required to keep the patent alive. Furthermore, the Inventor may have to spend hundreds of thousands of dollars enforcing a patent or defending against claims of invalidity, especially if the invention is lucrative. These costs are covered entirely by the Research Office.

Why does Rowan protect some intellectual property through patenting?

Patent protection is often a requirement of a potential commercialization partner (licensee) because it can protect the commercial partner's often sizable investment required to bring the technology to market. Due to their expense and the length of time required to obtain a patent, patent applications are not possible for all Rowan intellectual property. We carefully review the commercial potential for an invention before investing in the patent process. However, because the need for commencing a patent filing usually precedes finding a licensee, we look for creative and cost-effective ways to seek early protections for as many promising inventions as possible.

Will Rowan continue patenting activity without an identified licensee?

Often Rowan accepts the risk of filing a patent application before a licensee has been identified. After University rights have been licensed to a licensee, the licensee generally pays the patenting expenses. At times we must decline further patent prosecution after a reasonable period (often a year or two) of attempting to identify a licensee (or if it is determined that we cannot obtain reasonable claims from the PTO).

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

If you created the invention under a sponsored research or consulting agreement with a company, the Research Office will need to review that contract to determine ownership and other rights associated with the contract and to determine the appropriate next steps. Should the technology be jointly owned with another academic institution, the licensing specialist will usually enter into an "inter-institutional" agreement that provides for one of the institutions to take the lead in protecting and licensing the invention, sharing of expenses associated with the patenting process and allocating any licensing revenues. If the technology is jointly owned with another company, the licensing specialist will work with the company to determine the appropriate patenting and licensing strategy.



What is a copyright and how is it useful?

Copyright is a form of protection provided by the laws of the United States to the authors of “original works of authorship.” This includes literary, dramatic, musical, artistic, and certain other intellectual works as well as computer software. This protection is available to both published and unpublished works. The Copyright Act generally gives the owner of copyright the exclusive right to conduct and authorize various acts, including reproduction, public performance and making derivative works. Copyright protection is automatically secured when a work is fixed into a tangible medium such as a book, software code, video, etc. In some instances, Rowan University may register copyrights, but generally not until a commercial product is ready for manufacture.

What is a derivative work?

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

What is a trademark or service mark and how is it useful?

A trademark includes any word, name, symbol, device, or combination, that is used in commerce to identify and distinguish the goods of one manufacturer or seller from those manufactured or sold by others, and also to indicate the source of the goods. In short, a trademark is a brand name. A service mark is any word, name, symbol, device, or combination that is used, or intended to be used, in commerce to identify and distinguish the services of one provider from those of others, and to indicate the source of the services.

What is trademark registration?

Trademark registration is a procedure in which the United States Patent and Trademark Office (PTO) provides a determination of rights based upon legitimate use of the mark. However, it is not necessary to register a trademark or service mark to prevent others from infringing upon the trademark. Trademarks generally become protected as soon as they are adopted by an organization and used in commerce, even before registration. With a federal trademark registration, the registrant is presumed to be entitled to use the trademark throughout the United States for the goods or services for which the trademark is registered.

CONSIDERATIONS FOR A START-UP COMPANY

What is a start-up company and why choose to create one?

A start-up is a new business entity formed to commercialize one or more related inventions. Forming a start-up company is an alternative to licensing the IP to an established business. Rowan's Rohrer College of Business has a new business incubator located within the South Jersey Tech Park which specializes in developing and cultivating new businesses. A few key factors when considering a start-up company are:

- development risk (often companies in established industries are unwilling to take the risk)
- development costs versus investment return (can the investors obtain their needed rates of return)
- potential for multiple products or services from the same technology (few companies survive on one product alone)
- sufficiently large competitive advantage and target market
- potential revenues sufficient to sustain and grow a company

Who decides whether to form a start-up?

The choice to establish a new company for commercializing IP is a decision made by the Intellectual Property Committee and the inventor(s). Significant input will be solicited from the Inventor, Research Office specialists, and the Rohrer College of Business incubator. If a new business start-up is chosen as the preferred commercialization path, you will be referred to business specialists for the next steps in the commercialization process.

What assistance and resources are available to the inventor?

The new business specialists serve as coaches, advisors, resource locators and project planners to help fill the gap between the technology and the formation of a start-up. Their activities may include locating prospective management talent, developing a funding strategy, making introductions to probable investors, reviewing business plans, and engaging experts to work on key gating issues. New business professionals can also draw upon an extensive network of resources and experience to assist you.

What role does an inventor usually play in a start up company?

Rowan faculty typically serve as technology consultants, advisors or in some other technical developmental capacity. Rarely do faculty choose to leave the University and join the start-up. In many cases, the faculty role is suggested by the start-up investors and management team who identify the best role based on the inventor's expertise and interests. As the company matures, and additional investment is required, the inventor's role may change. Faculty involvement of any kind in a start-up would typically be reviewed by a Rowan Conflict of Interest Committee. Student inventors and post-docs may choose to join the start-up upon graduation but rarely have the experience or business skills to serve as the company's sole management.

How much of my time and effort will it take?

Starting a company requires a considerable amount of time and effort. Until the start-up team is identified and engaged, the faculty member will need to champion the formation effort. After the team is in place, effort is required for investor discussions, formal responsibilities in or with the company, and University processes such as conflict of interest reviews.

Can Rowan accept equity in the company?

Rowan University can accept equity as part of the financial terms of the license. Equity may be substituted for other cash considerations that are often difficult for start-ups. It is also a way for Rowan to share some of the risk associated with the start-ups. A decision to take equity must make sense for both Rowan University and the company.

Will the University pay for incorporating a start-up company?

No. As a separate entity, the start-up will pay for its own legal matters, including all business incorporation matters and licensing expenses.

What legal assistance is needed in creating a start-up?

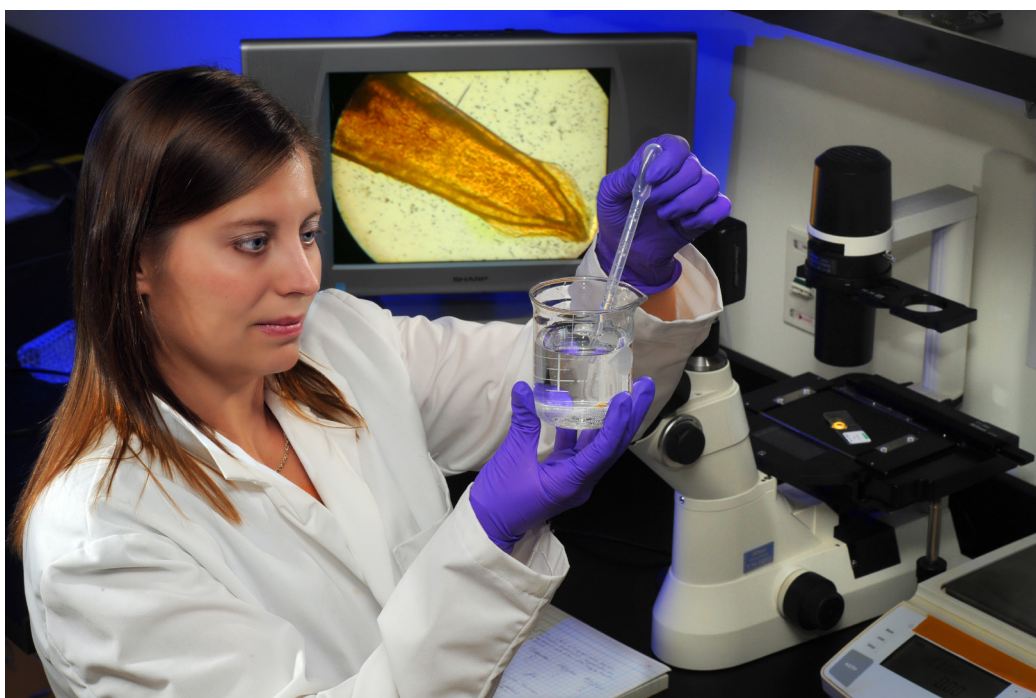
In addition to corporate counsel, the start-up may have its own intellectual property counsel to assist with corporate patent strategy, especially if the company will be involved in a patent-rich area. The start-up's counsel must be separate from Rowan counsel, though it is advisable and recommended that the corporate IP Counsel and the Rowan Patent Counsel coordinate activities. Also, it is wise for inventors to have agreements regarding their roles with the start-up reviewed by their own counsel to ensure that all personal ramifications — including taxation and liabilities — are clearly understood.

MARKETING TO FIND A LICENSEE

How does the Research Office market my inventions? How are most licensees found?

Research Office staff use many sources and strategies to identify potential licensees and market inventions. Sometimes existing relationships of the inventors, the Tech Park staff, and other researchers are useful in marketing an invention. Market research can assist in identifying prospective licensees. We also examine other complementary technologies and agreements to assist our efforts. We use our website to post inventions, leverage conferences and industry events, and make direct contacts. Faculty publications and presentations are often excellent marketing tools as well.

Studies have shown that 70% of licensees were already known to the inventors. Thus research and consulting relationships are often a valuable source for licensees. Licensees are also identified through existing relationships of the Tech Transfer staff. Our licensees often license more than one technology from the University. We attempt to broaden these relationships through contacts obtained from website posting inquiries, market research, industry events and the cultivation of existing licensing relationships.



How long does it take to find a potential licensee?

It can take months and sometimes years to locate a potential licensee, depending on the attractiveness of the invention, its stage of development, competing technologies, and the size and intensity of the market. Most university inventions tend to be in the early stage in the development cycle and thus require substantial commercialization investment, making it difficult to attract a licensee.

Can there be more than one licensee?

Yes, an invention can be licensed to multiple licensees, either non-exclusively to several companies or exclusively to several companies, each for a unique field-of-use (application) or geography.

How can I assist in marketing my invention?

Your active involvement can dramatically improve the chances of matching an invention to an outside company. Your research and consulting relationships are often helpful in both identifying potential licensees and technology champions within companies. Once interested companies are identified, the inventor is the best person to describe the details of the invention and its technical advantages. The most successful tech transfer results are obtained when the inventor and the licensing professional work together as a team to market and sell the technology. You must not begin independent marketing activities until a patent application has been filed (if it is the desired measure of protection), as doing so may compromise your patent rights.



LICENSES AND OTHER AGREEMENTS

What is a license?

A license is a permission that the owner or controller of intellectual property grants to another party, usually under a license agreement in return for money or some other benefit

What is a license agreement?

License agreements describe the rights and responsibilities related to the use and exploitation of intellectual property developed at Rowan. University license agreements usually stipulate that the licensee should diligently seek to bring the intellectual property into commercial use for the public good and provide a reasonable return to the University.

How is a company chosen to be a licensee?

A licensee is chosen based on its ability to commercialize the technology for the benefit of the general public. Sometimes an established company with experience in similar technologies and markets is the best choice. In other cases, the focus and intensity of a start-up company is a better option. The amount of potential bidders typically depends upon the nature and protectability of the intellectual property.

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

Per University policy, 50% of any financial return from a license is provided to the inventor(s) as royalties. Most inventors enjoy the satisfaction of knowing their inventions are being deployed for the benefit of the general public. New and enhanced relationships with businesses are another outcome that can augment one's teaching, research and consulting. A portion of the licensing revenues retained by Rowan will typically be reinvested in further research and development projects. In some cases, additional sponsored research may result from the licensee.

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

Many licensees require the active assistance of the inventor to facilitate their commercialization efforts, at least at the early stages of development. This can range from infrequent, informal contacts to a more formal consulting relationship. Working with a new business start-up can require substantially more time, depending on your role in or with the company and your continuing role within Rowan University. Your participation with a start-up is governed by University conflict of interest policies and the approval of your supervisor.

What other types of agreements and considerations apply to tech transfer?

- Non-Disclosure Agreements (NDAs) are often used to protect the confidentiality of an invention during evaluation by potential licensees. NDAs also protect proprietary information of third parties that Rowan researchers need to review in order to conduct research or evaluate research opportunities. The Research Office enters into NDAs for Rowan proprietary information shared with someone outside of the University.
- Material Transfer Agreements (MTAs), used for incoming and outgoing materials at Rowan, are administered by the Research Office. These agreements describe the terms under which Rowan researchers and outside researchers may share materials, typically for research or evaluation purposes. Intellectual property rights can be endangered if materials are used without a proper MTA.
- Inter-Institutional Agreements describe the terms under which two or more institutions (generally two universities) will collaborate to assess, protect, market, license, and share in the revenues received from licensing jointly owned intellectual property.
- Option Agreements, or Option Clauses within research agreements, describe the conditions under which Rowan preserves the opportunity for a third party to negotiate a license for intellectual property. Option clauses are often provided in a Sponsored Research Agreement to corporate research sponsors or Option Agreements are entered into with third parties wishing to evaluate the technology prior to entering into a full license agreement.
- Research Agreements describe the terms under which sponsors provide research support to Rowan University.



COMMERCIALIZATION

What activities occur during commercialization?

Most licensees continue to develop an invention to enhance the technology, reduce risk, prove reliability, and satisfy the market requirements for adoption by customers. This can involve additional testing, prototyping for manufacturability, durability and integrity, and further development to improve performance and other characteristics. Documentation for training, installation and marketing is often created during this phase. Benchmarking tests are often required to demonstrate the product/service advantages and to position the product in the market.

What is my role during commercialization?

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

What revenues are generated for the University if commercialization is successful?

If unsuccessful?

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

A recent study of licenses at U.S. universities demonstrated that only 1% of all licenses yield over \$1 million. However, the rewards of an invention reaching the market are often more significant than the financial considerations alone.

What will happen to my invention if the start-up company or licensee is unsuccessful in commercializing the technology?

Licenses typically include performance milestones that, if unmet, can result in termination of the license. This termination allows for subsequent licensing to another business.

NAVIGATING CONFLICTS OF INTEREST

What is a conflict of interest?

A conflict of interest can occur when a Rowan employee, through a relationship with an outside organization, is in a position to: 1) influence the University's business, research or other areas that may lead to direct or indirect financial gain, 2) adversely impact or influence one's research or teaching responsibilities, or 3) provide improper advantage to others, to the disadvantage of the University.

When should I seek guidance on conflict of interest?

Whenever a question or uncertainty arises, you should seek guidance from the Research Office. There are two times in particular when guidance is required: (1) when research proposals are submitted to external sponsors and (2) when a license, option or MTA is being considered with a company in which the faculty member, or any university employee, has an equity or management interest.

What kinds of issues concern conflict of interest reviewers?

Examples include the appropriate and objective use of research, the treatment and roles of students, supervision of individuals working at both Rowan University and a licensee company, and conflict of commitment (i.e., your ability to meet your University obligations).

What are examples of a conflict of commitment?

A conflict of commitment may exist if duties, assignments or responsibilities associated with a technology license or outside business arrangement have a negative impact on your ability to meet commitments associated with your University employment or exceed the amount of time available to you for these activities. The best approach is to fully disclose your situation to your supervisor and discuss the implications for your job responsibilities.

What are examples of a conflict of commitment?

Research Office representatives can advise you on conflict of interest issues or direct you to the appropriate conflict of interest representative. It is the responsibility of the researcher or faculty member to disclose and document any outside arrangements that constitute disclosable situations or interests as described in Rowan conflict of interest policies. A COI approval is required before any associated agreements can be approved.

REVENUE DISTRIBUTIONS

How are license revenues distributed?

The Research Office is responsible for managing the expenses and revenues associated with technology agreements. Per Rowan University policy, revenues from license fees, royalties and equity—minus any unreimbursed patenting and file expenses—are shared 50/50 with the inventor(s).

What are the tax implications of any revenues I receive from the University?

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

What happens to my share of licensing revenue if I waive rights to it?

Revenues waived by inventors are distributed to the associated school/college and department/unit. To avoid potential tax liability, revenues waived by you to your department/unit must not be under your control.

What are the tax implications of any revenues I receive from the University?

While there may be some variation in the procedure, typically when a license agreement is developed, a Revenue Distribution Plan (RDP) is created to document the formula used to distribute any subsequent revenues. The initial RDP includes a draft formula based on the contributions listed in the Invention Disclosure(s) relating to the license. The Research Office asks one inventor within the group to serve as coordinator and to report the percentages determined by the inventors collectively. All inventors must sign the RDP, signifying their approval. Should the inventors be unable to agree on a revenue distribution plan, the Research Office will make the final revenue allocation decision.

How is equity from a license distributed?

When University equity is liquidated by the University Treasurer's office, the resulting funds are distributed in accordance with the RDP and University Policy. Shares of publicly traded businesses may be distributed to inventors before liquidation.