The Inventor’s Guide to Technology Commercialization outlines the essential elements of technology commercialization at the University of Utah. The guide is organized to answer the most common questions we typically field from our research community and is designed to provide a broad overview of the technology commercialization process and services available for researchers.

If you have any questions, please contact TVC at info@tvc.utah.edu or 801-581-7792.

TVC OVERVIEW
Since 1965, the Center for Technology & Venture Commercialization (TVC) has established a global reputation for leadership in technology commercialization. On behalf of the University of Utah, TVC serves as a catalyst for the regional ecosystem, responsible for all aspects of invention management, patent prosecution, licensing, start-up formation and support, equity, management and early stage funding. TVC is situated within the University of Utah Research Foundation, a not-for-profit 501(c)3 controlled by University of Utah.

WHAT IS TECHNOLOGY TRANSFER?
Technology transfer is the movement of knowledge and discoveries from the university environment to the general public. This can occur through publications, educating students entering the workforce, exchanges at conferences, and relationships with industry. For the purposes of this guide, however, technology transfer refers to the licensing of university technology to third parties and the formation of new companies for the benefit of the region, the state of Utah and the world.

WHAT IS THE BAYH DOLE ACT?
At the close of World War II, the U.S. government evaluated how money spent on basic research was benefiting the general public. Following years of political debate, it was determined that while intellectual property (IP) is important to capture and develop, it was also apparent that the government was ill equipped to manage such IP from its broad diversity of funded programs. Ultimately, the Bayh-Dole Act (Public Law 96-517) was passed in 1980 to create a uniform policy for all institutions of higher education accepting federal research funds. The Bayh-Dole Act allows universities and other non-profit institutions to have ownership rights to discoveries resulting from federally funded research provided certain obligations are met. Universities are required to protect and commercialize the discoveries, submitting progress reports to relevant funding agencies. The Bayh-Dole Act is credited with stimulating interest in technology commercialization activities and generating increasing research and educational opportunities, and economic development.

WHAT IS THE UNIVERSITY IP POLICY?
The university IP policy states that the university owns inventions, discoveries, and improvements made by faculty, staff and certain graduate students as a result of either university employment or through the use of university resources. For additional information, please refer to university policies which can be found on our University Guidelines page at tvc.utah.edu/inventor-resources/university-guidelines.

COMMERCIALIZATION PROCESS
1. STARTS WITH AN IDEA
2. DISCLOSURE
Within minutes, an idea can be disclosed using our Disclose page at tvc.utah.edu/inventor-resources/disclose. Once submitted, a technology manager will be assigned to review the disclosure.
3. REVIEW PROCESS
A team of experts will evaluate the invention stage of development, market size, commercial opportunity, intellectual property protection options, funding requirements, and the likely commercial path. A comprehensive analysis is
compiled into a “triage report” that is reviewed with the inventor to help them understand the potential of the invention and next steps.

4. INTELLECTUAL PROPERTY PROTECTION
TVC works with independent attorneys specializing in intellectual property protection, many of whom also have a technical background. Working actively with the inventors and attorneys, intellectual property protection will be sought.

5. MARKET INVENTIONS
TVC works with inventors to determine when an invention is ready to be licensed (either to a start-up or an existing company). Efforts to identify the best potential partner(s) are made.

6. LICENSE
TVC will work to negotiate a license based on an equitable terms as efficiently as possible.

7. PRODUCTS & SERVICES
Once a license is executed, TVC works to support relationships with licensees to optimize commercial impact.

8. ROYALTY & INVESTMENT INCOME
TVC distributes royalty and investment income, per university policy, to inventors. Where possible, income is also invested into commercialization of future university inventions.

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

It is important to carefully document dates and conditions of use so that TVC can determine if this use may influence the commercialization potential of your subsequent research results as well as the rights of other entities. If you wish to obtain materials from outside collaborators, an incoming material transfer agreement should be completed.

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

Many areas of research require researchers to openly share their results with other researchers in order for the overall field of research to progress. The university recognizes this and seeks to avoid having intellectual property policies limit performing quality research. It is imperative, however, to document items that are to be shared with others. If you wish to send materials to an outside collaborator, an outgoing material transfer agreement should be completed. It may also be necessary to have a confidential disclosure agreement completed to protect research results or intellectual property.

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 affected by these activities it is best to submit an invention disclosure form well before any public communication or disclosure. There are significant differences between the U.S. and other countries as to how early publication affects a potential patent. Whenever public disclosure occurs, worldwide patent rights may be lost for that invention. Additionally, there is only one one-year period to obtain patent protection in the U.S. Whenever possible contact TVC prior to public disclosure to make sure your work is appropriately protected.

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

The sponsored research agreement or grant agreement should specify the intellectual property rights of the sponsor. In the case of the U.S. government (NIH, NSF etc.) it maintains a non-revocable, non-exclusive license to use the technology. For commercial sponsored research the university typically retains ownership of any patent rights and other intellectual property resulting from the sponsored research. However, the sponsor may have rights to obtain a license to intellectual property arising from the research. Often, sponsored research agreements allow the sponsor a limited time to negotiate a license for intellectual property rights developed as the result of research. Even so, a sponsor generally will not have contractual rights to discoveries that are clearly outside the scope of the research (and which do not use funds from the research agreement). Therefore, it is important to define the scope of work within a research agreement.

Sponsored research agreements are managed by the Office of Sponsored Projects (OSP). Their representatives work closely with TVC on intellectual property issues in sponsored research agreements. If you have questions please visit osp.utah.edu or call 801-581-8499.

What about consulting?

When faculty or staff enter into consulting agreements, they remain bound by all university policies and procedures regarding the disclosure and ownership of existing and potential intellectual property. Consulting agreements are not negotiated by TVC but TVC does provide guidelines for faculty to better understand the process. Researchers who enter into consulting agreements should familiarize themselves with university policies relevant to consulting activities. A researcher is expected to ensure that the terms of a consulting arrangement are consistent with the university’s policies, including those related to IP ownership, employment responsibilities and use of intellectual property. TVC is available to provide informal advice on how a consulting agreement relates to the university’s intellectual property you have created.

DISCLOSURE

How do I submit an invention disclosure?

When an inventor believes that they have made an invention, they need to disclose the information to TVC by filling out an online form known as an invention disclosure at tvc.utah.edu/inventor-resources/disclosure. This disclosure should list all sponsors of the research and should include all the information necessary to pursue intellectual property protection and commercialization activities. It is critical that each section be completed in as much detail as possible in order to avoid delays in processing. You should also note the date of any upcoming publications or other public disclosure describing the invention. This document will be treated as confidential. You will be contacted by a technology manager to discuss the invention and its potential commercial applications shortly after your submission.

Why submit an invention disclosure?

University faculty, staff, and certain graduate students are responsible to disclose all inventions that could constitute intellectual property or copyrighted works to TVC. This is done through completion of an invention disclosure form. Invention disclosure is critically important for all projects and often required by certain agreements or funding agencies, especially where funding comes from the federal government, private foundation, or commercial sponsor. Federal law requires prompt disclosure. The university, inventors, and involved companies could lose significant rights if disclosures are not made promptly.
When should I disclose my invention?
Any faculty, staff, or certain students who believes he or she may have created an invention or has a novel idea is obligated to disclose the nature of invention and provide background information and literature to TVC. An invention disclosure should be submitted to TVC once a researcher can concisely define the invention. An invention disclosure form should always be submitted prior to public disclosure. To avoid overlooking disclosure of inventions, researchers should err on the side of inclusion and have TVC secure a professional evaluation.

Should I list visiting scientists, collaborators from other universities or collaborators from industry on my invention disclosure form?
All individuals providing meaningful contributions to the ideas leading to a discovery should be mentioned in your disclosure, even if they are not university employees. TVC will determine the rights of such persons and institutions.

Can a student contribute to an invention?
Yes, a student may even be the sole contributor or inventor. University policy for ownership of an invention developed with or by a student can be found on tv.c.utah.edu/inventor-resources/university-guidelines.

Should I disclose research tools?
Research tools include antibodies, vectors, plasmids, cell lines, mice, and other materials used as “tools” in the research process. Research tools do not necessarily need to be protected by patents in order to be licensed to commercial third parties and generate revenue for your laboratory. Other research tools (i.e. a new separation process) may require patent protection in order that a company will invest in the engineering development to make the process broadly useful. If you have research tools which you believe to be valuable, TVC will work with you to develop the appropriate IP protection, licensing, and distribution strategy.

Does submitting an invention disclosure to TVC secure patent protection?
Submitting an invention disclosure does not directly result in any form of intellectual property protection. TVC assesses a technology for commercial applicability and then makes a determination as to the appropriate course of action. You will be kept well informed and be included in the invention analysis and subsequent processes.

What constitutes public disclosure?
There is no perfect answer to this question, but public disclosure includes journal publications, website publications, presentations at conferences, posters, dissertation/master thesis, or abstract publication. If you have questions about this please contact TVC.

What is “prior art” and how do I find it?
Prior art refers to anything regarding a potential invention that has come before. Keep in mind, for instance, that a patent has to be novel and non-obvious. Journal publications, foreign patents, issued U.S. patents and patent applications are all areas that can constitute prior art. Since an inventor understands better than most what an invention entails, he or she should be familiar with as much of the prior art as possible regarding the invention space. Searches of the internet, journal articles, and patents are helpful examples of sources to conduct prior art searches. TVC has available resources (patentscout.info) and researchers can also search the U.S. Patent & Trademark Office website at uspto.gov.

What happens after my invention disclosure is submitted?
One of the main functions of TVC is to evaluate new invention disclosures to determine their scientific uniqueness, potential for intellectual property protection and commercial potential. When a new disclosure is received, TVC checks for accuracy (all sections must be filled in as much detail as possible) and verifies funding sources. If any of these components are not complete TVC cannot begin to process the disclosure. A complete disclosure is entered into the TVC database, assigned an ID number (“U-xxxx”) and assigned to a technology manager. The technology manager, typically with the help of the inventors, review the novelty of the invention, search the depth of competing technologies, conduct an IP search to determine the likelihood of protection and determine the commercial potential of a future product or service, including the amount of time and money required for further development.

INTELLECTUAL PROPERTY
What can be patented?
An invention is patentable if it is novel, non-obvious, and useful. Novel, of course means new. Non-obviously is achieved if someone who is skilled in the art would not have thought of the idea easily. A new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement may be eligible for patent protection. Methods making use of concepts and ideas may be eligible for patent protection. On the other hand, concepts and ideas per se are not patentable.

Who is responsible for patenting?
TVC engages with outside patent counsel for patent protection, thus assuring access to specialists in diverse technology areas. Inventors work closely with patent counsel in drafting patent applications and responses to patent offices for countries in which patents are filed.

What is the patenting process?
Patent applications are generally drafted by a patent attorney or a patent agent. The patent attorney will typically ask you to review an application before it is filed as well as ask questions about inventorship. At the time an application is filed, the patent attorney will ask the inventor(s) to sign an Inventor Declaration and an Assignment under which the inventor confirms assignment of his or her rights in the patent (as per university policy) to the University of Utah, which in turn assigns its rights to the University of Utah Research Foundation.
Within 12-24 months, depending on the technology, the patent attorney will typically receive written notice from the USPTO as to whether the application and its claims have been accepted as patentable in the form as filed. More often than not, the USPTO rejects the application because either certain formalities need to be cleared up, or claims are not patentable over the prior art. This letter sent by the USPTO is referred to as an office 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 USPTO position is believed to be incorrect. This procedure is referred to as patent prosecution. Often it will take several USPTO office actions and responses from the attorney before the application is resolved. The resolution can take the form of a USPTO notice that the application is allowable and issue a patent. During the prosecution process, input from the inventors is often needed to confirm the patent attorneys’ understanding of the technical aspects of the invention and/or the prior art cited against the application.
Does it cost anything to file a patent? 
Unfortunately, it is not free to file a patent. Between USPTO filing fees and associated attorneys costs, filing a patent in just the U.S. can cost between $10,000 and $50,000. International patent filings are even more expensive as they cover a larger number of countries and often involve foreign attorneys and translators. A multi-nation filing can easily cost well over $100,000. Additionally, there are annual maintenance fees for all patents, expanding the total cost over the lifetime of a patent even further.

Who pays for the patent costs? 
Prior to a license, the university pays the costs of patent prosecution and maintenance. Once a technology is licensed, the university will typically transfer the associated costs to the licensee.

Who owns the invention and the patents? 
All IP is assigned to the University of Utah Research Foundation as dictated by university policy.

Will filing a patent application prevent me from publishing or disclosing my research? 
No. Filing a patent application, however, typically must precede public disclosure.

WHAT SERVICES/RESOURCES DOES TVC OFFER? 

Entrepreneurs-in-Residence 
Startups are not created equally but entrepreneurial experience is something all startups can benefit from. This is why TVC created the entrepreneur-in-residence (EIR) program. We have experienced entrepreneurs available to help answer questions large and small as well as provide support from the benefit of their experience. Even if you are thinking about an idea for a company, it’s never too early to engage with one of our EIR’s.

Educational Programming 
TVC hosts more than 50 educational programs annually from informal lectures to three-day training programs. We curate these programs to deliver the latest approaches to commercialization from experts around the world. Please visit our calendar of events to register for upcoming events at tvc.utah.edu/news-events/events.

Networking Events 
TVC routinely hosts networking events in order to catalyze relationships across the innovation ecosystem. Please visit tvc.utah.edu/news-events/events to register for upcoming events.

Lean Canvas 
Lean Canvas is an educational and market discovery program for individuals interested in better understanding how to commercialize their inventions. Delivered in two phases over 12 weeks, participants in Lean Canvas learn how to develop a scalable business model based on real-time market research and customer feedback.

Marketing 
TVC uses many sources and strategies to identify potential licensees to market inventions. Sometimes existing relationships of TVC, the inventors, and other individuals are useful in marketing an invention. We also employ market research to assist in identifying prospective licensees.

Confidentiality Agreements 
A Confidential Disclosure Agreement (CDA) is an agreement between the university and an outside entity (company or person) to facilitate discussions of confidential information. For companies, sharing of their business needs and development problems can lead toward developing solutions with university personnel, but a company would not want such confidential information revealed to their competitors or inadvertently used to their disadvantage. For universities, maintaining confidentiality is important for preserving intellectual property and other rights.

START-UP COMPANIES 

What is a start-up? 
A startup is a new business entity formed to commercialize one or more related products or services. Forming a startup business is occasionally an alternative to licensing intellectual property to an established business.

Who decides to form a start-up? 
It is the decision of TVC as to whether it is in the university’s best interest to license to an existing company or form a new company to license to.

What role does an inventor play in a start-up? 
There are a variety of considerations as to the role of an inventor in a start-up. These include the nature and stage of the technology and the business plan of the company. This decision is also influenced by other members of the management team and outside investors.

Does the university take equity in start-ups? 
Typically, but not in all instances. The decision to take equity is dependent on certain factors, most of which are negotiated at the time of licensing.

As a faculty/staff member would the university allow me to start a company and continue my position here? 
Yes. However, university policy does not release you from your university commitments, teaching, and/or research duties, simply because you start a company. Remember, establishing a company requires considerable effort and time and operating a company takes even more commitment. Being involved in a startup also presents unique conflicts which must be disclosed and managed by employees and the university. While TVC can provide support for understanding commitments required to be successful, approval from your supervisor is typically required. For questions about conflicts, visit coi.utah.edu.

What services does TVC have to offer for start-ups? 
TVC offers a comprehensive array of support for start-ups. To learn more, visit tvc.utah.edu/funding-resources/startup-360/ or contact Paul Corson, Director of Entrepreneurship at paul.corson@tvc.utah.edu.

LICENSE AGREEMENTS 

What is a license? 
A license is a legal agreement that grants permission by the owner of intellectual property that allows another party to act under some or all of the owners’ rights.
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 business with experience in similar technologies and markets is the best choice. In other cases, the focus and intensity of a startup company is a better option.

What does the inventor gain when my invention is licensed?
Per university policy, a share of any financial return from a license is provided to the inventor(s). In addition, inventors enjoy the satisfaction of knowing their inventions are being developed for the benefit of the general public.

ADDITIONAL FACTORS FOR SUCCESSFUL TECHNOLOGY COMMERCIALIZATION

Be realistic
Many inventions are very early stage. Consider what strategies and resources are available to support further development of your invention.

Stay informed
The technology landscape changes quickly. Track trends in your field and evaluate impacts on the commercial value of your invention.

Stay in touch
Your expertise as the inventor is only one component of success. Actively engage with TVC and participate in outreach and seek qualified partners to join with in commercialization.