

INTELLECTUAL PROPERTY POLICY OF WILLIAM BEAUMONT HOSPITAL



Beaumont®

Helping you develop your invention



For many years, Beaumont doctors have helped to advance medical technology. So has Beaumont Hospitals.

We launched the Beaumont Commercialization Center in 2008 to help inventors bring their ideas for new medical devices and technology to reality. The Commercialization Center works to turn the latest patented technologies from inventors at Beaumont and other medical institutions into market-ready medical devices for original equipment manufacturers to acquire or license.

Now we want to reach out to Beaumont-affiliated physicians in a collaborative, mutually beneficial effort to foster technological innovation.

This manual is a “road map” for that process. It provides specifics on Beaumont’s intellectual property policy and details on how the Commercialization Center works with inventors. If you already have an idea for a patentable invention, or if you think you may have one in the future, I urge you to review this manual. Please contact the Commercialization Center with any questions you may have or to begin the intellectual property development process.

We look forward to working with you on your invention.

A handwritten signature in black ink that reads "Ananias Diokno, M.D." The signature is written in a cursive, flowing style.

Ananias Diokno, M.D.
Executive Vice President and Chief Medical Officer
Beaumont Hospitals

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OVERVIEW OF BEAUMONT HOSPITALS’ INTELLECTUAL PROPERTY POLICY

On July 27, 2010, Beaumont Hospitals (“Beaumont”) approved a new policy to govern intellectual property (IP) development by its direct and affiliated staff. The policy that was established governs the rights and duties of all individuals employed by Beaumont and those involved in Beaumont supported activities, which includes individuals conducting patient or non-patient research at Beaumont and individuals receiving funding from Beaumont or using staff and/or facilities of Beaumont with respect to inventions, discoveries, works of authorship, software or other intellectual property matters as protected under the laws of patents, copyrights, trademarks or as trade secrets.

The policy itself sets out to describe in detail the corporate rules and regulations governing the development and ownership of intellectual property developed as a result of access to Beaumont resources, both physical and intellectual. A copy of this policy is available online for you to review at www.beaumonthospitals.com/commercialization-center.

Beaumont has revised this policy to provide an improved framework for Beaumont staff that details the common issues surrounding intellectual property development, including ownership and revenue generation and subsequent distribution.



Intellectual property ownership

In most cases, ownership of IP is either by an individual or an organization/company. It is important to differentiate between the “inventor” and “ownership” of the said patent. An individual or individuals can be the inventor(s) of a particular patent while not having ultimate ownership of that patent. This scenario is most common when the inventor is employed by an organization or company.

This scenario is key to what Beaumont has established in this policy. The policy states that if the invention is created while an individual is either directly employed by Beaumont and/or using resources of Beaumont, then the ownership rightfully belongs to Beaumont; Beaumont has ownership of the patent rights. It is safely assumed that the background for a particular invention idea and the many intellectual and physical resources required to verify, validate and develop this idea would not be available to an individual on their own. Because of this relationship with the organization (in this case, Beaumont Hospitals), those assets are available and instrumental in the creative and development process and therefore give rise to this common attribute of intellectual property development in the United States.

Exact policy wording is as follows:

“This Policy governs the rights and duties of all individuals employed by Beaumont, and those involved in Beaumont supported activities which includes individuals conducting patient or non-patient research at Beaumont, and individuals receiving funding from Beaumont or using staff and/or facilities of Beaumont with respect to inventions, discoveries, works of authorship, software or other intellectual property matters as protected under the laws of patents, copyrights, trademarks, or as trade secrets.”

It is extremely important for Beaumont staff to know that in exchange for this, Beaumont Hospital is providing additional significant financial support to develop your idea as well as offering a highly competitive revenue sharing model so that the inventor will directly benefit by the commercial success of his or her idea. This will be described in further detail.

Additionally, there is not a distinction in the IP policy between “Beaumont employed” or private practice physicians with rights to practice at Beaumont. If the invention is supported in any way by Beaumont, then this policy will cover the ownership of any intellectual property rights.



If a physician/inventor already has an approved patent, Beaumont will consider supporting the further development or refinement of the technology. If that is the case, then a mutual agreement will be reached prior to the commencement of any support related to ownership and royalty rights or any percentages thereof.

Beaumont’s support is a key point

The “trade-off” to Beaumont maintaining ownership of inventions developed by its staff is that the hospital has committed to support the inventor at all levels of commercialization in return for this arrangement.

The cost to develop a medical device from idea to finding a potential licensee (numerous steps in between that will be highlighted later in this manual) can cost anywhere from \$100,000 for a very simple device upwards of millions for larger, more complicated product patents. Obviously an inventor “going solo” will have to bear the costs or more often borrow all the money necessary throughout this process. This also does not take into account the immense time commitment to take an idea from initial concept through to commercial fruition.

Beaumont believes strongly that the greatest benefit to all is that, in lieu of the inventor retaining all rights, the physical and financial support of the hospital will enable the inventor to be even more creative and generate greater intellectual property with less individual effort.

Ownership equals dollars, doesn't it?

Yes, and this is the crux of any IP policy in corporate America. At Beaumont, the end result of a successful patent is either a sale (assignment) or grant of license rights (to an individual or company). The other possibility is that the patent/product is strong enough that a new company can be created using the protected IP as a core market advantage.

Both cases, if successful, will generate potentially significant revenue over varying time horizons for the owner of the patent.

Through the structure of the revenue sharing model contained within the policy; Beaumont creates a system that benefits the overall organization while providing significant benefits to the inventors. The cost to support an individual invention through commercial maturity requires the time and resources of many individuals and departments. Beaumont's policy enables revenue sharing that provides funding back to the hospital to support critical administrative costs, the department or "research line," and the inventor(s). This system is in place to capture the necessary revenue required to continue support for this valuable organizational activity and provide highly competitive revenue sharing for Beaumont inventors.

Below is a table excerpted from Beaumont's Intellectual Property Policy detailing the sliding scale of payment of royalties received to inventors and the hospital based on license value:

Cumulative Net Income	Inventor Share	Beaumont Share	Sub-Distribution of Beaumont Share		
			Hospital	Research Service Line	Research Institute
< \$100,000	45%	55%	15%	20%	20%
\$100,000 – 500,000	40%	60%	15%	25%	20%
> \$500,000	35%	65%	15%	30%	20%

Types of "income" or exits and what it can mean financially

As you can see, the potential inventor distribution amount is tied to a sliding scale of "cumulative net income." Once a final license/sale of Beaumont IP is completed, the first requirement is for Beaumont to recoup the direct costs associated with the development of the invention over time. These costs are primarily the legal/administrative costs of preparing and filing the necessary documents along the way. Additional common direct costs would be funds required to complete prototyping (drawings, models, tooling, molding, etc.) and targeted clinical and/or validation testing done via Beaumont staff and resources. These amounts will be different for every project depending upon the complexity of the invention but will be openly detailed as they are incurred.

It is Beaumont's intent to keep costs as low as possible so as to maximize total overall return. The Beaumont Commercialization Center, or BCC, will routinely review project direct costs with the inventor(s) so that all are aware of progress and budget details. A main point to consider regarding the cost structure of a particular invention is that the cost is relative compared to the revenue received, which cannot be known specifically at the time of development. The estimated potential valuation of a specific invention can be built, but the precise amount is dependent upon many market variables that will be present at some point in the future.

The cumulative net income therefore is the income/revenue available after Beaumont has recouped its direct project related costs.

The royalties can take many forms. The two most common forms would be a fixed amount or ongoing royalties, which can be a fixed price per item, or a percent of sales. These arrangements can also include one-time, up-front payments for the technology and can include performance requirements in the form of milestone payments or minimum annual royalty arrangements. The general concept is that, with the former, there would be a one-time payment and disbursements would be made based upon that. With the second scenario, the inventor's (as well as the hospital's) distribution would be based upon each periodic payment as they are made over time. Keep in mind that contractual negotiations can create a multitude of scenarios. The main point of emphasis is understanding the potential time frames for revenue generation.

THE BEAUMONT COMMERCIALIZATION CENTER PROCESS

The process, as described below, is fairly straightforward and oriented toward providing a significant amount of support so that the inventor can work to support the idea and not worry about the time and resource-consuming background work (unless he/she wants to). Our approach to supporting and developing medical technology IP at Beaumont is oriented toward creating an environment that nurtures innovation and maintains our staff's primary focus of providing renowned patient care.

The BCC was established to support Beaumont inventors and provide custom support to develop and refine ideas as early as possible. Involvement early in the development process generally helps to put the invention in a better position to be granted a utility patent and for that patent to be commercially viable. The strategy is set to hone the idea at every step in order to ensure that medical technology inventions originating from Beaumont and its staff have, on average, greater commercial potential that may be realized. Oftentimes, a great deal of potential can be added to certain inventions in the early stages and that is the focus of BCC. Understanding the markets, trends, potential partners and business issues are key ingredients to refining ideas and getting them on the right track.

Assuming the invention is patentable, there are many factors that can affect the potential of an idea to have a successful commercial exit event. The commercial potential of an invention is the basis for licensing negotiations. Partners/investors will look to build a sound understanding of what it would take to bring the product to market balanced against annualized revenue potential.

The following are considerations that you should be prepared to answer. Questions such as these will be discussed with you throughout the process:

- Is the invention a highly complicated device?
 - Depending upon the level of invention complexity, the cost to market and manufacture will be factors in negotiations.
- What is the type of market the invention is positioned for?
 - Is it a lower technology/high volume market?
 - Is the invention for a specific procedure/treatment that doesn't lend itself to other applications?

- Is the invention an improvement on a specific product or is it entirely new?
 - Both are good in their own ways. A marked improvement on an existing and accepted device means there are potentially many partners. A brand new solution will mean that a market will have to be created which, in general, results in a higher-cost but greater return.
- Is your invention a component or a stand-alone product?
 - If the invention provides a better way to perform a process or add to a system's performance, that will dictate what types of partners are targets and the ability for them to realize competitive advantages by integrating this technology. If the patent is for a singular product, is it capable of expansion into multiple products/platforms/uses?

BCC will work with you through the entire process with these considerations in mind. The objective is to position and obtain a patent that has already incorporated the best potential for commercial success.

Timeline

There are many factors that can affect the timeline to receive a patent. The first step at Beaumont Hospitals is the preparation leading to a potential utility patent application. The second step is essentially out of your hands as the U.S. Patent and Trademark Office, or USPTO, reviews the application and makes determinations leading up to an eventual approval or rejection.

The preparation and application stage is primarily determined by BCC. The largest factors are invention complexity/potential and case load. In general, BCC will be able to meet with you, perform some preliminary market background and support you with the invention disclosure in a week or two, depending upon case load. This stage is described in detail below, but the general timeframe leading up to a provisional patent filing (assuming the invention meets minimal conditions for patentability) can be up to six (6) months but typically shorter. From the provisional filing date, Beaumont has one (1) year to file a full utility patent and file for international protection, if desired.

A typical time frame from idea to receiving a full U.S. utility patent is 24 to 30 months (includes step described above). Keep in mind that this timing is subject to the backlog at the USPTO, which varies

greatly. There are examples of less, but the process is rarely completed in less than two years. Depending upon the type of invention and if the USPTO requires additional information or review, the process for approval can significantly lengthen the duration as well.

Once an approved patent application has been filed, the inventor/patent holder can generally start to market the license in earnest. There are no timelines that are consistent enough to communicate here. It depends upon many factors, including potential market and partners and their needs. BCC will actively promote and advertise available technologies for license through many channels. The strength of the Beaumont strategy at this point is that through BCC, a strong understanding and knowledge of the market and players is present. BCC will look to capitalize on these networks and industry knowledge to reduce the time to develop and negotiate with viable commercial exit opportunities.

BCC intellectual property development process

Below are the primary steps that you, as an inventor at Beaumont, will take along the path to eventual commercialization. It is important to note that eventual success is dependant upon many factors. Beaumont will look to support all inventors with generating disclosures. In each stage however, there will be some inevitable attrition and there will be decisions made along the way as to the best opportunities for commercialization and therefore full support.

In the case of decisions not to support a particular patent for further development, BCC will offer the inventor the ability to have full ownership returned so that they may proceed individually. In this case, the advice and business guidance of BCC is always available.



Step 1. Initial meetings/review

What is important about this step?

It all starts with an idea from you! As a health care professional, you see a great deal of medical devices, diagnostics and ancillary systems on a daily basis. The core of the idea is what we will work with. It does not have to be a complete idea or product. A concept or a problem delineated is just as valuable

What will you do?

Keep a diary of thoughts you have and don't worry about each idea being a perfect solution. Include general thoughts, dates and sketches if you have them. Pay special attention to areas you see daily where a process can be shortened, performance can be improved, user and/or patient safety can be elevated or a procedure that has never really had a perfect solution.

When you feel you have unique idea, contact BCC to set up an informal meeting to discuss.

It is extremely important that you do not share your idea with vendors or other professionals, especially at conferences or seminars. It is entirely possible to undermine the ability to get a patent because your idea was discussed in a public domain prior to the filing of your application.

What will happen?

At the first meeting, we will discuss your idea with you and look at the general issues and advantages. We may also provide some background about the market/industry or other similar solutions/products that are currently available. It is important to know that your patent may end up being significantly different from your original idea. It is a process and the invention may go through several iterations before a final format is reached.

Step 2. Invention disclosure

What is important about this step?

We like to call this step the “legal line in the sand.” Completion of this simple document is what starts the entire formal process. It is also a key consideration if/when a patent is ever challenged by another inventor. This document will ask a few questions that will enable you to describe your invention and highlight the benefit it will provide and the solutions it addresses. It is not a complicated, prepared document. Simply answer the questions and submit it to BCC.



What will you do?

Download the “Beaumont Commercialization Center Invention Disclosure,” available on the Beaumont Hospitals website at www.beaumonthospitals.com/commercialization-center. Based upon our initial meeting, you should be able to fill this out fairly easily. If you have any problems or questions, please contact us and we are happy to assist.

What will happen?

Once you have submitted the completed document to BCC, it will be filed and the process of review and background will begin.

Step 3. Assessment of disclosure application potential

What is important about this step?

At this stage, it is important for Beaumont to review all potential provisional patent filing candidates. In order to efficiently use resources and develop an overall successful patent portfolio, a review and potential assessment is necessary. Feedback may be the key to improving an idea if it does not pass this stage the first time.

What will you do?

Depending upon the nature of the invention disclosure, you may be involved in discussing the merits of the idea.

What will happen?

You will be notified of when the meetings will be held and the results. Beaumont’s goal is to build a successful portfolio of medical technology intellectual property that in turn increases the funding for the development efforts. The objective is for all to be successful and find eventual paths that lead to positive application results for all of our inventors.

This committee will be three to five people and consist of BCC, Beaumont leadership and legal representation. The committee will review all current invention disclosures and discuss relative merits of each case in order to determine which disclosures will be the foundation for a provisional patent filing.

If projects are passed over at this time, they typically have two paths to follow: 1) the rights are returned to the inventor so that he or she can pursue development on their own, or 2) the invention is reviewed and modified at a later date to be considered again.

Step 4. Provisional patent filing

What is important about this step?

This is a USPTO filing that will set in motion the subsequent IP development steps. An inventor has one year to file for a full utility patent based on the application date of the provisional filing. In some cases, it may be desirable to initially file a formal patent application. BCC will help determine the best patent filing process to pursue.



Step 5. Beaumont patent application candidate selections

At this stage, Beaumont will review all provisional patent concepts on a periodic basis. The review process will take projects at this stage and look to select as many best candidates as possible to proceed through the next stages to full utility patent application and perhaps also an international PCT patent application filing.

The process of patent preparation and application is expensive and time consuming. Beaumont, or any institution for that matter, realistically does not have unlimited financial resources to move all projects through the next few stages, which can, depending upon complexity, cost tens of thousands of dollars each at a minimum.

Beaumont will look to weigh the previously generated background information provided that outlines the market or commercial potential of the invention. This is not to imply that other benefits of the invention are not considered. However, the mission of Beaumont is to develop IP that has strong commercial viability so that revenue can be generated and returned to the inventors and hospital to further support this process.

This committee will be five to seven people and consist of BCC, Beaumont leadership, clinical domain experts and legal representation. This team will review all current provisional patent applications and discuss relative merits of each case to determine which projects will be the foundation for a full utility filing and receive additional support (described in the next step).

If projects are passed over at this time, they will typically have two paths to follow: 1) the rights are returned to the inventor so that he/she can pursue development on their own, or 2) the invention is reviewed and modified at a later date to be considered again.

Step 6. Reduce to practice – deeper analysis

What is important about this step?

At this stage, BCC will invest significantly more time into researching the potential market(s) as well as the invention's patentability. Additional research will be conducted to understand key issues and topics to address in both the evolving design and upcoming application. Additionally, BCC may need to have more refined design drawings completed as well as subsequent level prototyping (still non-functional for the most part at this stage).

What will you do?

Work with the Beaumont team as needed. Provide available background information and expertise.

What will happen?

BCC will add to the original review and address more detailed issues surrounding the opportunity from both a commercialization potential and also feasibility perspective. Working in conjunction with Beaumont's IP attorneys, additional investigations will be completed reviewing the targeted patent landscape and potential.



Step 7. Full utility patent application

What is important about this step?

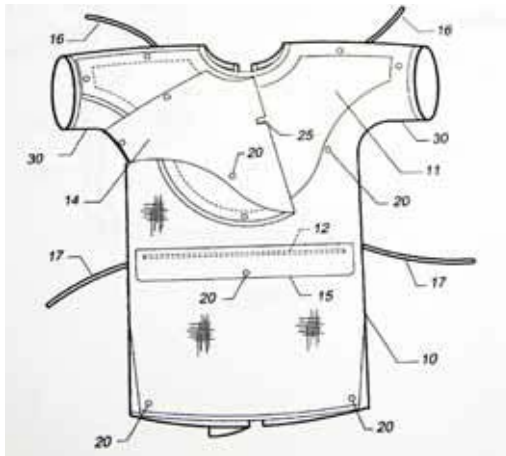
This is the formal and extensive application document necessary to obtain a U.S. patent. The preparation for this will be extensive and a considerable amount of time will be spent with BCC staff and, most importantly, Beaumont's IP attorneys to properly prepare this application both in terms of strategy and content.

What will you do?

You will be called on often to work with the IP attorneys to prepare this document. It will take time and the actual development timetable for the application may span months depending upon the complexity of the invention

What will happen?

Since this is a legal document, much of the workload will be done by the IP attorneys. Once submitted, there may be questions from the USPTO examiners that Beaumont will need to respond to. At this point, it is primarily a matter of waiting for feedback.



Step 8. Multichannel marketing

What is important about this step?

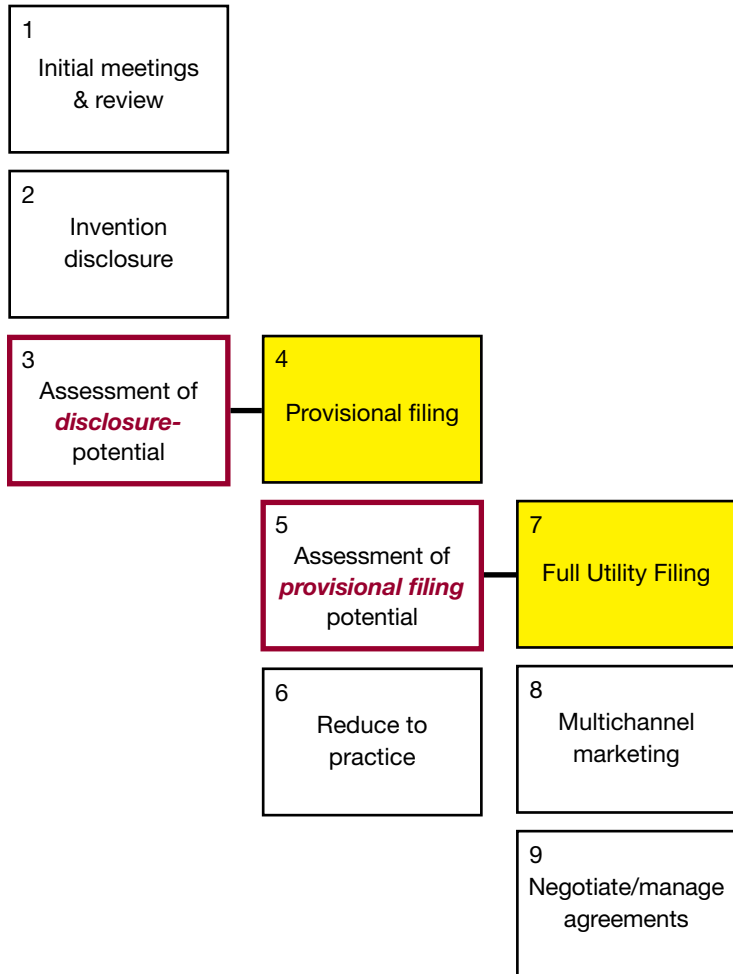
Assuming the application culminates in an awarded U.S. patent, this is the phase where you will work closely with BCC. Efforts to commercialize the invention will have begun while a patent application is pending. At this point, the medical technology patent represents unrealized commercial potential and the mission is to build a strategy and plan for each Beaumont Patent and accelerate the process by which a partner or licensee is developed.



This phase will vary quite a bit depending upon the scope, nature, market and complexity of the patent. If it is a component or improvement to an existing process or platform, the mission will be to target suppliers and OEMs. If the patent represents a product where there are significant industry players, then the objective will be to contact and promote interest in the IP through multiple channels.

Assuming that a partner or, more importantly, an exit is defined, then BCC, along with the Beaumont legal department and IP attorney, will work along side you in negotiating the terms of the license and the multitude of components it may include. Again, this is a very custom process and the type of agreement will be based on many business related and performance criteria that will be used to determine market valuations, which, in turn, are used by both parties in contract discussions.

BCC COMMERCIALIZATION PROCESS



Separate committees to review and select candidates to move to next phase.

USPTO application

Step 9. Negotiate/manage agreements

What is important about this step?

Once a potential partner is identified, Beaumont will establish the monetary value for your invention via a mutually agreed upon licensing contract. There are no specific steps to this since virtually every negotiation will follow its own path. Additionally, the timeline can be variable since it is dependent upon many external factors.



This is the point where the value and the preparation to position the invention as much as possible will generate value for the inventor and Beaumont. As the inventor, you will be a team member involved in the strategy and discussions related to the negotiation of a license for your invention. Remember, it is in Beaumont's best interest as well as your best interest for the best possible agreement to be approved. BCC staff is experienced with the business aspects of these negotiations.

With a team consisting of BCC staff, the Beaumont legal team and you, the objective of successfully commercializing your invention will be realized.

APPENDIX

This manual was produced to provide a quick-reference guide to understanding the primary aspects of intellectual property development and the program and process put in place by Beaumont Hospitals to support your inventions.

You will see that the primary background and process steps have been presented in a way so that you can review them quickly and get a sense of the scope and commitment you will be involved with as your invention takes shape. This manual by design is brief and concise. We understand that you are an extremely busy medical and healthcare professional, so the objective is to help you get started easily and then support you along the way.

In addition to this manual, there will be ample support material available through the BCC website and staff.

We hope that you are able to take some time to familiarize yourself with the general points of this manual so that you can refer to it easily for support when considering a medical technology invention.

A patent background discussion

Following is an excerpt from Brinks Hofer Gilson and Lione's *The Basic Principles of Intellectual Property Law, Second Edition* and is subject to copyright protection and therefore is not to be copied without written approval.

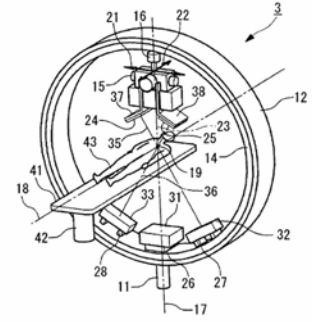


The term "intellectual property" broadly refers to the creative product of a person's mind, which the law treats as a property right. Intellectual property is considered intangible but is still property in the truest sense in that it can be bought and sold, and it gives rise to legal rights, duties and consequences.

Right in intellectual property under United States laws generally fall into one of the following four categories: patents, copyrights, trademarks and trade secrets. The laws of contracts also often play a major role in the dealing with intellectual property issues. In addition, there are some other forms of intellectual property protection including those resulting from various state and common law principles such as unfair competition.

Types of patents

Utility patents are also called functional patents, since they encompass the function or operation of a machine or device. Utility patents have a term of enforceability running from the date of issuance to 20 years from its earliest effective U.S. filing date, provided that periodic maintenance fees are paid.



Utility patents can be obtained in the following categories of subject matter:

- Machines or apparatuses include inventions that are typical of those most people think about as examples of patented inventions. This category includes devices in which components interact, (e.g. automobile transmission, machine tools, appliances, etc.).
- Processes include methods or procedures used, for example, in the manufacture of a device or product. The category also includes computer software which is used to produce some tangible result.
- Articles of manufacture are articles without moving parts. Examples include soap dishes, water spray nozzles and bottles.
- Compositions of matter include compounds and mixtures such as plastics, pharmaceutical compounds and metal alloys. This category has also been determined to encompass certain types of life forms, including single-cell and multiple-cell organisms as well as vertebrate animals. For example, Harvard University was granted a patent on a genetically engineered mouse (see U.S. Patent No. 4,736,866).
- Business methods is a term used to describe certain types of processes which relate to doing business. This area of patents has experienced dramatic growth with advancing technologies in e-commerce and the internet.
- Computer software was previously deemed to be unpatentable subject matter based on Supreme Court holdings that created confusion as to whether software was an idea, a formula or an algorithm. More recent Supreme Court rulings focused on the patent claims as a whole and not just whether they contained a mathematical formula in

determining if the overall process or method was patentable subject matter. Since then, many computer software applications have been filed and many have been issued patents.

- Design patents protect any new, original and ornamental design of an article of manufacture. Compared with utility patents, which protect the function or operation of a machine or device, design patents protect the appearance of a product. This appearance may be in the form of a shape, color, surface ornamentation or a combination of these forms. Design patents protect well-known consumer goods, such as Apple iPods, Nike footwear and Eclipse mints, just to name a few.

Requirements of patentability

In addition to the requirement that the invention fall within one of the subject matter categories, additional requirements must be satisfied in order for an inventor to patent an invention in the U.S. These additional requirements are that the invention must be novel, must not be obvious, and must have utility. These requirements are discussed in more details as follows:

Novelty. This requirement has various facets and is defined by Federal Statute (35 U.S.C. §102). One set of the novelty rules refers to the date of invention. A patent application will be denied, or an issued patent will be found invalid, if before the date of invention (not the filing date), the invention was:

- known or used by others in the U.S.
- patented or described in a printed publication anywhere in the world.
- described in a granted patent filed by another or in an application filed by another which was published that resulted from an application filed before the date of invention
- invented in the U.S. by another who did not abandon, suppress, or conceal it.

Note that these novelty requirements refer to the date of invention. If a patent or publication of another is asserted as grounds for rejection of a patent application or in challenging the validity of a patent, the inventor may have to prove that his or her date of invention predates such a publication. This situation is one of the reasons that inventors

should keep complete and accurate records that are witnessed by another to establish when the invention was made and when it was demonstrated as useful for its intended purpose or “reduced to practice.”

Non-obviousness. Another requirement of patentability is that an invention must not have been “obvious” at the time of invention to one of ordinary skill in the area. In determining obviousness of an invention, the Patent Examiners and courts attempt to put themselves in the shoes of a person of ordinary skill in the art and assume that this person is aware of all of the relevant prior art at the time of invention or before that patent application was filed. The term “prior art” is used to refer to any public documents or information that describes aspects of the state-of-the-art as it existed prior to the invention or filing of the patent applications.

Utility. The requirement of utility means that the invention must have a useful purpose and not be solely for implausible or immoral purposes. This requirement is rarely relied upon as a basis for denying patentability.

Significantly, under U.S. patent laws, only an inventor can seek to patent his or her invention and, hence, a patent cannot be granted to a third party who, rather than invents, is merely the first person to “race to the patent office” with a patent application.

Types of utility patent applications

Original U.S. patent applications can be placed in four groups of different types of applications:

Nonprovisional patent applications form the great majority of U.S. patent applications. Often referred to as “regular” or “formal” applications, a nonprovisional application is examined by a Patent Examiner at the USPTO. If it claims a patentable invention, it will ultimately mature into an issued patent. Nonprovisional applications can claim the benefit of the filing date of one or more earlier-filed U.S. applications as well as the date of a foreign patent application that was filed no more than one year before the filing date of the nonprovisional application. A nonprovisional application is usually published by the USPTO eighteen (18) months after its earliest-claimed filing date.

Provisional patent applications may also be filed with the USPTO. A provisional patent application is used to establish a priority of invention (i.e. to secure a filing date for a given disclosure of the invention). The provisional patent application becomes automatically abandoned on the first anniversary of its filing date and is never itself either “examined” or published by the USPTO. Thus, to benefit from the filing of a provisional patent application, a nonprovisional patent application must be filed no more than 12 months after the filing date of the provisional patent application, and further, make an explicit reference to the earlier-filed provisional patent application. As long as a nonprovisional patent application is properly filed within the 12-month period, the provisional patent application filing date is used as the later application’s “effective filing date” for invention adequately described in the provisional patent applications.

Reissue patent applications are patent applications filed to correct a “defect” in an issued patent. A “narrowing” reissue seeks to narrow the scope of one or more claims to correct a defect, such as claiming more than the patentee had a right to claim. A narrowing reissue can be filed at any time prior to the expiration of the patent’s term. A “broadening” reissue seeking to expand the claims coverage must be filed with the USPTO no more than two years from the date on which the patent originally issued.

International patent applications are patent applications filed under the patent cooperation treaty, or PCT. In a PCT application, the applicant “designates” one or more of the many PCT member countries, encompassing virtually the entire industrialized world, to preserve the option to later file that PCT application in any designated country. The PCT patent application can be filed in any one of the many national patent offices.

RESOURCES FOR THE INVENTOR

Beaumont Hospitals

www.beaumont hospitals.com

Intellectual Property Policy

www.beaumont hospitals.com/commercialization-center

Invention disclosure form

www.beaumont hospitals.com/commercialization-center

United States Patent & Trademark Office, or USPTO

www.uspto.gov

USPTO inventors resources

<http://www.uspto.gov/inventors/index.jsp>

Google patents

www.google.com/patents

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