

# INDO AMERICAN JOURNAL OF PHARMACEUTICAL RESEARCH



ISSN NO: 2231-6876

# INTELLECTUAL PROPRIETY RIGHTS: REVIEW

# Pravin Tryambak Netkar\*, Mohammed Awais Iqbal, Momin Nashra Sohail, Farooqui Nilofar **Mohammad Jameel**

Royal College of Pharmaceutical Education & Research, SayneKhurd, Malegaon, Dist. Nashik [423203] Maharashtra, India.

# ARTICLE INFO

# **Article history**

Received 26/01/2020 Available online 29/02/2020

#### **Keywords**

Intellectual Property, Patent, Copyright, Trademark. Tradesecret.

#### **ABSTRACT**

Intellectual property rights (IPR) have been defined as ideas, inventions, and creative expressions based on which there is a public willingness to bestow the status of property. IPR provide certain exclusive rights to the inventors or creators of that property, in order to enable them to reap commercial benefits from their creative efforts or reputation. There are several types of intellectual property protection like patent, copyright, trademark, etc. Patent is recognition for an invention, which satisfies the criteria of global novelty, nonobviousness, and industrial application. IPRs are generally understood to have two principal areas of impact in pharmaceuticals. First, there is the issue of pricing and access, where discussion focuses on the links between IPRs (particularly patent rights), exclusion of competitors and the availability and pricing of new medicines. Second, there is the issue of R & D incentives - that is to say, the role of IPRs in providing incentives to discover, develop and market new drugs - and the effect of IPRs on R & D expenditure and its allocation across diseases, countries and organizations. In this article we are providing the information about IPR. CONCLUSION: Intellectual property rights are monopoly rights that grant their holders the temporary privilege for the exclusive exploitation of the income rights from cultural expressions and inventions.

# Corresponding author **Pravin Tryambak Netkar**

Assistant Professor, Department of Pharmaceutics pravinnetkar13@gmail.com +918263851673

Please cite this article in press as Pravin Tryambak Netkar et al. Intellectual Propriety Rights: Review. Indo American Journal of Pharmaceutical Research. 2020: 10(02).

#### INTRODUCTION

Intellectual Property Right (IPR) is a right given over a creation of the mind and to exclusively exploit it for a certain period of time. Intellectual property, often known as IP, allows people to own their creativity and innovation in the same way that they can own physical property. The owner of IP can control and be rewarded for its use. This encourages further innovation and creativity to the benefit of everyone.

Generally speaking, intellectual property law aims at safeguarding creators and other producers of intellectual goods and services by granting them certain time-limited rights to control the use made of those productions. Those rights do not apply to the physical object in which the creation may be embodied but instead to the intellectual creation as such. Intellectual property is traditionally divided into two branches, "industrial property" and "copyright." The Convention Establishing the World Intellectual Property Organization (WIPO), concluded in Stockholm on July 14, 1967 provides that "intellectual property shall include rights relating to: - literary, artistic and scientific works, - performances of performing artists, phonograms and broadcasts, - inventions in all fields of human endeavor, - scientific discoveries, - industrial designs, - trademarks, service marks and commercial names and designations, - protection against unfair competition, and all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields." 1.4 The areas mentioned as literary, artistic and scientific works belong to the copyright branch of intellectual property. The areas mentioned as performances of performing artists, phonograms and broadcasts are usually called "related rights," that is, rights related to copyright. The areas mentioned as inventions, industrial designs, trademarks, service marks and commercial names and designations constitute the industrial property branch of intellectual property. The area mentioned as protection against unfair competition may also be considered as belonging to that branch, the more so as Article 1(2) of the Paris Convention for the Protection of Industrial Property (Stockholm Act of 1967) (the "Paris Convention") includes "the repression of unfair competition" among the areas of "the protection of industrial property"; the said Convention states that "any act of competition contrary to honest practices in industrial and commercial matters constitutes an act of unfair competition". The expression "industrial property" covers inventions and industrial designs. Simply stated, inventions are new solutions to technical problems and industrial designs are aesthetic creations determining the appearance of industrial products. In addition, industrial property includes trademarks, service marks, commercial names and designations, including indications of source and appellations of origin, and protection against unfair competition. Here, the aspect of intellectual creations—although existent—is less prominent, but what counts here is that the object of 4 WIPO Intellectual Property Handbook: Policy, Law and Use industrial property typically consists of signs transmitting information to consumers, in particular as regards products and services offered on the market, and that the protection is directed against unauthorized use of such signs which is likely to mislead consumers, and misleading practices in general. (3.6.40)

# **OBJECTIVE:**

- **IPR Awareness: Outreach and Promotion** To create public awareness about the economic, social and cultural benefits of IPRs among all sections of society.
- **Generation of IPRs** To stimulate the generation of IPRs.
- Legal and Legislative Framework To have strong and effective IPR laws, which balance the interests of rights owners with larger public interest.
- Administration and Management To modernize and strengthen service-oriented IPR administration.
- Commercialization of IPRs Get value for IPRs through commercialization.
- Enforcement and Adjudication To strengthen the enforcement and adjudicatory mechanisms for combating IPR infringements.
- **Human Capital Development** To strengthen and expand human resources, institutions and capacities for teaching, training, research and skill building in IPRs (1,32)

## **PURPOSE OF IPR:**

- 1. IPR (Intellectual property Rights) is a general term covering patents, copyrights, trademarks, industrial designs, geographical indications, layout design of integrated circuits and protection of undisclosed information (trade secrets).
- 2. Protection for idea/material.
- 3. The owner can usually decide whether or not to license its use to someone else (OR) to sell it to someone else through proper channel.(12, 41,3)

#### HISTORY OF INTELLECTUAL PROPERTY RIGHTS:

- 1. Prior to General Agreement on Tariffs and Trade (GATT), intellectual property rights were not subject to formal international trade negotiations.
- 2. Rather, intellectual properties were subject only to international conventions like Berne and Rome conventions concerning Copyrights.
- 3. The agreement on TRIPS (Trade Related Intellectual Property Rights) was negotiated with other international trade agreements during the URUGUAY round trade organizations of the GATT from 1986 to 1994.
- 4. The TRIPS agreement sets minimum standards in the field of Intellectual Property protection that all WTO member countries have to respect.
- To achieve this goal, WTO members have to modify their Intellectual Property laws to make them consistent with the new WTO standards.
- 6. The TRIPS agreement states that all patents shall be available for at least 20 years from filing date, whereas before the TRIPS agreement the patent term varied greatly among the countries (7, 10, 17 or 20 years).
- 7. All WTO member countries have to incorporate this 20 years patent term in their patent. (5,6,38)

# The 4 Main Types of Intellectual Property and Related Costs:

- 1. Patents.
- 2. Trademarks.
- 3. Copyrights
- 4. Trade Secrets.

Intellectual property protection isn't as simple as declaring ownership of a particular product or asset. In most countries, there are four primary types of intellectual property (IP) that can be legally protected: patents, trademarks, copyrights, and trade secrets. Each has their own attributes, requirements and costs.

Before narrowing your focus on which form of protection to use, know that these forms of protection are not mutually exclusive. Depending on what you're doing, you might be able to use a "belt & suspenders" approach and apply multiple forms of protection, or one approach might be the most sensible. Read the descriptions below to get some of the basics.(21,28,35)

#### **PATENT**



Figure No. 01: Patent.

A patent is a document, issued, upon application, by a government office (or a regional office acting for several countries), which describes an invention and creates a legal situation in which the patented invention can normally only be exploited (manufactured, used, sold, imported) with the authorization of the owner of the patent. "Invention" means a solution to a specific problem in the field of technology. An invention may relate to a product or a process. The protection conferred by the patent is limited in time (generally 20 years).

Used to protect inventive ideas or processes – things that are new, useful and nonobvious - patents are what most often come to mind when thinking of IP protection. Patents are also used to protect newly engineered plant species or strains, as well. In a number of countries, inventions are also protectable through registration under the name of "utility model" or "short-term patent." The requirements are somewhat less strict than for patents, in particular in respect of inventive step, and in comparison with patents the fees are lower, and the duration of protection is shorter, but otherwise the rights under the utility model or short-term patent are similar.

It should be emphasized, however, that while the State may grant patent rights, it does not automatically enforce them, and it is up to the owner of a patent to bring an action, usually under civil law, for any infringement of his patent rights. The patentee must therefore be his own "policeman."

Simply put, a patent is the right granted by the State to an inventor to exclude others from commercially exploiting the invention for a limited period, in return for the disclosure of the invention, so that others may gain the benefit of the invention. The disclosure of the invention is thus an important consideration in any patent granting procedure.

An invention must meet several criteria if it is to be eligible for patent protection. These include, most significantly, that the invention must consist of patentable subject matter, the invention must be industrially applicable (useful), it must be new (novel), it must exhibit a sufficient "inventive step" (be non-obvious), and the disclosure of the invention in the patent application must meet certain standards. 18 WIPO Intellectual Property Handbook: Policy, Law and Use Patentable Subject Matter

In order to be eligible for patent protection, an invention must fall within the scope of patentable subject matter. Patentable subject matter is established by statute, and is usually defined in terms of the exceptions to patentability, the general rule being that patent protection shall be available for inventions in all fields of technology (see Article 27.1 of the TRIPS Agreement).

Subject matter which may be excluded from patentability includes the following (see also Article 27.3 of the TRIPS Agreement). Examples of fields of technology which may be excluded from the scope of patentable subject matter includes the following:

- discoveries of materials or substances already existing in nature; scientific theories or mathematical methods
- plants and animals other than microorganisms, and essentially biological processes for the production of plants and animals, other than non-biological and microbiological processes;
- schemes, rules or methods, such as those for doing business, performing purely mental acts or playing games;
- Methods of treatment for humans or animals, or diagnostic methods practiced on humans or animals (but not products for use in such methods).

The TRIPS Agreement (Article 27.2) further specifies that Members may exclude from patent protection certain kinds of inventions, for instance inventions the commercial exploitation of which would contravene public order or morality. (6,11,18,43)

#### CONDITIONS OF PATENTABILITY

# **Industrial Applicability (Utility):**

An invention, in order to be patentable, must be of a kind which can be applied for practical purposes, not be purely theoretical. If the invention is intended to be a product or part of a product, it should be possible to make that product. And if the invention is intended to be a process or part of a process, it should be possible to carry that process out or "use" it (the general term) in practice. 2.11 "Applicability" and "industrial applicability" are expressions reflecting, respectively, the possibility of making and manufacturing in practice, and that of carrying out or using in practice. 2.12 The term "industrial" should be considered in its broadest sense, including any kind of industry. In common language, an "industrial" activity means a technical activity on a certain scale, and the "industrial" applicability of an invention means the application (making use) of an invention by technical means on a certain scale. National and regional laws and practices concerning the industrial applicability requirement vary significantly. At one end of the spectrum, the requirement of industrial applicability is met as long as the claimed invention can be made in industry without taking into account the use of the invention. At the other end of the spectrum, the "usefulness" of the claimed invention is taken into account for the determination of the industrial applicability. On the other hand, some countries do not require industrial applicability, but utility. (33)

#### **Novelty**

Is a fundamental requirement in any examination as to substance and is an undisputed condition of patentability. It must be emphasized, however, that novelty is not something which can be proved or established; only its absence can be proved. An invention is new if it is not anticipated by the prior art. "Prior art" is, in general, all the knowledge that existed prior to the relevant filing or priority date of a patent application, whether it existed by way of written or oral disclosure. The question of what should constitute "prior art" at a given time is one which has been the subject of some debate. One viewpoint is that the determination of prior art should be made against a background of what is known only in the protecting country. This would exclude knowledge from other countries, if it was not imported into the country before the making of the invention, even if that knowledge was available abroad before the date of the making of the invention. Another viewpoint is based on the differentiation between printed publications and other disclosures such as oral disclosures and prior use, and where such publications or disclosures occurred. The disclosure of an invention so that it becomes part of the prior art may take place in three ways, namely: - by a description of the invention in a published writing or publication in other form; - by a description of the invention in spoken words uttered in public, such a disclosure being called an oral disclosure; - by the use of the invention in public, or by putting the public in a position that enables any member of the public to use it, such a disclosure being a "disclosure by use." Publication in tangible form requires that there be some physical carrier for the information, a document in the broad sense of the term, and that document must have been published, that is to say, made available to the public in any manner such as by offering for sale or deposit in a public collection. Publications include issued patents or published patent applications, writings (whether they be manuscript, typescript, or printed matter), pictures including photographs, drawings or films, and recording, whether they be discs or tapes in either spoken or coded language. Today, publication on the Internet must increasingly be taken into consideration. Oral disclosure, as the expression suggests, implies that the words or form of the disclosure are not necessarily recorded as such and includes lectures and radio broadcasts. Disclosure by use is essentially a public, visual disclosure such as by display, sale, demonstration, unrecorded television broadcasts and actual public use. A document will only destroy the novelty of any invention claimed if the subject matter is explicitly contained in the document. The subject matter set forth in a claim of an application under examination is thus compared element by element with the contents of each individual publication.

Lack of novelty can only be found if the publication by itself contains all the characteristics of that claim, that is, if it anticipates the subject matter of the claim. WIPO Intellectual Property Handbook: Policy, Law and Use Lack of novelty may however, be implicit in the publication in the sense that, in carrying out the "teaching" of the publication, a person having ordinary skill in the art would inevitably arrive at a result falling within the terms of the claim. Generally speaking, lack of novelty of this kind will only be raised by the Patent Office where there is no reasonable doubt as to the practical effect of the prior "teaching." It should be noted that in considering novelty, it is not permissible to combine separate items of prior art together. (8, 16, 36)

# **Inventive Step (Non-Obviousness)**

In relation to the requirement of inventive step (also referred to as "non-obviousness"), the question as to whether or not the invention "would have been obvious to a person having ordinary skill in the art" is perhaps the most difficult of the standards to determine in the examination as to substance. The inclusion of a requirement like this in patent legislation is based on the premise that protection should not be given to what is already known as part of the prior art, or to anything that the person with ordinary skill could deduce as an obvious consequence thereof. The expression "ordinary skill" is intended to exclude the "best" expert that can be found. It is intended that the person be limited to one having the average level of skill reached in the field in the country concerned. It should be noted that novelty and inventive step are different criteria. Novelty exists if there is any difference between the invention and the prior art. The question, "is there inventive step?" only arises if there is novelty. The expression "inventive step" conveys the idea that it is not enough that the claimed invention is new, that is, different from what exists in the state of the art, but that this difference must have two characteristics. Firstly, it must be "inventive", that is, the result of a creative idea, and it must be a step, that is, it must be noticeable. There must be a clearly identifiable difference between the state of the art and the claimed invention. This is why, in some jurisdictions, there is the concept of an "advance" or "progress" over the prior art. Secondly, it is required that this advance or progress be significant and essential to the invention. In order to assess the nature of the differences which are relied upon as constituting an inventive step, account has to be taken of the prior art as a whole. Thus, as distinct from the assessment of novelty, the subject matter of the claim under examination is compared not with each publication or other disclosure separately, but with the combinations thereof, insofar as each such combination is obvious to the person having ordinary skill in the art. The combination may be global, whereas the claim may define a set of subject matter known separately, for instance a new form of washing machine including a particular type of motor coupled to a particular type of pump. For the inventive step to be denied, it is necessary that not only the combination, but also the choice of the combined elements, is obvious. It is the sum of the differences that have been discovered which must be compared with the prior art and judged as to obviousness, and not each of the new elements taken individually, except where there is no technical link between them. In most cases, it is useful to assess inventive step in relation to three aspects, namely: - the problem to be solved; the solution to that problem; and - the advantageous effects, if any, of the invention with reference to the background art. If the problem is known or obvious, the examination will bear on the originality of the solution claimed. If no inventive step is found in the solution, the question becomes whether or not the result is obvious or whether it is surprising either by its nature or by its extent. If a person having ordinary skill in the art would have been able to pose the problem, solve it in the manner claimed, and foresee the result, the inventive step is lacking. (34)

#### **Procedure**

For most companies, patents result from the following stages:

# Conceptualization

Typically, innovation teams work to address a common problem facing their organization, industry, or the world at large when developing their idea. When they've arrived at a solution or concept, they'll draw up plans and gather the resources necessary to make it a reality. Prototypes or drawings can be created to provide a more accurate description of the end product or process.

#### **Invention Disclosure**

An internal review process often occurs with every invention. The innovation team consists of internal counsel and an invention review panel of varying disciplines. The reviewers assess, rate, rank, score, and highlight potential flaws in the supporting documents and descriptions for the invention, which are then addressed by the inventor. These reviews can and often do take place multiple times for a single invention.

# **Patent Application**

If the invention is deemed meritorious enough for the pursuit of patent protection, some organizations prepare their own provisional or nonprovisional patent applications. Others will farm this stage out. There may be more tweaks as an application is prepared, and then submission to the appropriate patent office and the prosecution stage begins (the back & forth with the government patent office). Typically it is outside counsel that manages this process and related docketing activities.

Docketing is the overarching name for activities that include management of paperwork and meeting filing deadlines specified by the government patent office. Because the application process is often very complicated, patent offices highly recommend working with experienced patent attorneys to handle this process.

#### Maintenance

Once a patent is approved, it has a finite lifetime. Patent holders are responsible for maintaining and tracking the usage of their patents and paying the appropriate periodic government renewal fees. If a given technology or other patented asset is collecting dust, you might not want to renew it. Instead, you can try and sell, license or donate it. Conversely, if a patented asset is performing well through product sales or licensing activities and its life is getting shorter, you might think about innovating ahead and maintaining competitive momentum.(1,15)

#### Costs

Costs will vary depending on the country or countries where you file an application, and can run into tens of thousands of dollars depending on the invention's complexity, plus attorney fees. Maintenance fees over the lifetime of the patent can run into thousands more per patent, per country where patent rights have been granted. You have to keep your eyes on these costs. (5,9,31).

#### Infringement

Exclusive Right of a Patent Owner Generally speaking, a patentee acquires the right, enforceable at law, to decide who shall and who shall not exploit his patented invention. He retains this right for the term of the patent, provided he pays any necessary renewal or maintenance fees. The patent owner's legal rights over his invention are usually limited in a number of quite different ways. 28 WIPO Intellectual Property Handbook: Policy, Law and Use Firstly, the claims which define the monopoly may be subject to amendment or invalidation by the courts in respect of defects which were not detected prior to the grant of the patent. Secondly, where the invention is an improvement or development of an earlier subsisting patent, the patent owner may need to obtain a license and pay royalties to the earlier patent owner. Thirdly, the patent owner's rights are usually limited by the patent law, quite apart from the question of validity of his patent. In most patent systems, for example, the patent owner is required to work his invention, either on his own behalf, or by licensing others to use it, if he wishes to retain his monopoly. A non-voluntary license may, for instance, be granted to third parties if it can be demonstrated that the patented invention is not worked or is insufficiently worked in the country. Finally, a fourth legal limitation on a patent owner's right to exploit his invention is that patented inventions may often be used by Government or by third parties authorized by Government, where the public interest so requires, on terms fixed by agreement or by the courts. (3,8,37).

#### **TRADEMARK**



Figure No. 02: Trademark.

A trademark is unlike a patent in that it protects words, phrases, symbols, sounds, smells and color schemes. Trademarks are often considered assets that describe or otherwise identify the source of underlying products or services that a company provides, such as the MGM lion roar, the Home Depot orange color scheme, the Intel Inside logo, and so on.

Trademarks already existed in the ancient world. Even at times when people either prepared what they needed themselves or, more usually, acquired it from local craftsmen, there were already creative entrepreneurs who marketed their goods beyond their localities and sometimes over considerable distances. As long as 3,000 years ago, Indian craftsmen used to engrave their signatures on their artistic creations before sending them to Iran. Manufacturers from China sold goods bearing their marks in the Mediterranean area over 2,000 years ago and at one time about a thousand different Roman pottery marks were in use, including the FORTIS brand, whichbecame so famous that it was copied and counterfeited. With the flourishing trade of the Middle Ages, the use of signs to distinguish the goods of merchants and manufacturers likewise expanded several years ago(12,17).

#### **Definition**

"A trademark is any sign that individualizes the goods of a given enterprise and distinguishes them from the goods of its competitors." This definition comprises two aspects, which are sometimes referred to as the different functions of the trademark, but which are, however, interdependent and for all practical purposes should always be looked at together.(13,14,32).

#### **Criteria of Protectability:**

The requirements which a sign must fulfill in order to serve as a trademark are reasonably standard throughout the world. Generally speaking, two different kinds of requirement are to be distinguished. The first kind of requirement relates to the basic function of a trademark, namely, its function to distinguish the products or services of one enterprise from the products or services of other enterprises. From that function it follows that a trademark must be distinguishable among different products. The second kind of requirement relates to the possible harmful effects of a trademark if it has a misleading character or if it violates public order or morality. These two kinds of requirement exist in practically all national trademark laws. They also appear in Article 6quinquies B of the Paris Convention where it is stated that trademarks enjoying protection under Article 6quinquies A may be denied registration only if "they are devoid of any distinctive character" or if "they are contrary to morality or public order and, in particular, of such a nature as to deceive the public." (16,21,34)

#### **Protection of Trademark Rights**

A trademark can be protected on the basis of either use or registration. Both approaches have developed historically, but today trademark protection systems generally combine both elements. The Paris Convention places contracting countries under the obligation to provide for a trademark register. Over one hundred and fifty States have adhered to the Paris Convention. Nearly all countries today provide for a trademark register, and full trademark protection is properly secured only by registration. 2.389 Use does still play an important role, however: first of all, in countries that have traditionally based trademark protection on use, the registration of a trademark merely confirms the trademark right that has been acquired by use. Consequently, the first user has priority in a trademark dispute, not the one who first registered the trademark.(3,19,41)

### **Use Requirements**

#### Need for an Obligation to Use

Trademark protection is not an end in itself. Even though trademark laws generally do not require use as a condition for the application for trademark registration, or even the actual registration, the ultimate reason for trademark protection is the function of distinguishing the goods on which the trademark is used from others. It makes no economic sense, therefore, to protect trademarks by registration without imposing the obligation to use them. Unused trademarks are an artificial barrier to the registration of new marks. There is an absolute need to provide for a use obligation in trademark law. At the same time trademark owners need a grace period after registration before the use obligation comes into effect. This is especially true of the many companies that are active in international trade. In order to avoid loopholes in the protection of their new trademarks of which competitors could take advantage, they must from the very beginning apply for the registration of their new trademarks in all countries of potential future use. Even in their own countries companies 78 WIPO Intellectual Property Handbook: Policy, Law and Use often need several years before they can properly launch a newly-developed product on the market. This is especially true of pharmaceutical companies, which have to make clinical tests and have to apply for approval of their product by the health authorities. The grace period granted in trademark laws that provide for a use obligation is sometimes three years, but more often five years. (42)

### **Consequences of Non-Use**

The principal consequence of unjustified non-use is that the registration is open to cancellation at the request of a person with a legitimate interest. There is moreover a tendency to require of the registered owner that he prove use, since it is very difficult for the interested third party to prove non-use. In the interest of removing "deadwood" from the register, such reversal of the burden of proof is justified.(21, 34)

#### **Procedure**

Trademarks do not necessarily require government approval to be in effect; they can apply through abundant use in interstate commerce. Still, registration of a trademark affords far superior protection and is gained by filing an application with the proper government office.

A trademark application requires the company or user to provide a clear description and representation of the mark and its uses in conjunction with associated products or services. As with patents, it's a good idea to partner with outside counsel that specializes in trademark applications and/or search services so they can help ensure there is a clear path for your desired mark.(18, 24)

# Costs

Trademarks are generally quite less expensive to obtain. According to the <u>US Patent and Trademark Office</u>, trademark registration currently costs between \$225 and \$325 for each class code you use per mark. Attorney and search fees are extra. There are also periodic (and relatively inexpensive) government maintenance fees for trademarks.(5,6,8,11)

#### **COPYRIGHT**



Figure No. 03: Copyright.

Copyright law is a branch of that part of the law which deals with the rights of intellectual creators. Copyright law deals with particular forms of creativity, concerned primarily with mass communication. It is concerned also with virtually all forms and methods of public communication, not only printed publications but also such matters as sound and television broadcasting, films for public exhibition in cinemas, etc. and even computerized systems for the storage and retrieval of information. 2.163 Copyright deals with the rights of intellectual creators in their creation. Most works, for example books, paintings or drawings, exist only once they are embodied in a physical object. But some of them exist without embodiment in a physical object. For example music or poems are works even if they are not, or even before they are, written down by a musical notation or words. 2.164 Copyright law, however, protects only the form of expression of ideas, not the ideas themselves. The creativity protected by copyright law is creativity in the choice and arrangement of words, musical notes, colors, shapes and so on. Copyright law protects the owner of rights in artistic works against those who "copy", that is to say those who take and use the form in which the original work was expressed by the author.

Copyrights do not protect ideas, but rather the manner in which ideas are expressed ("original works of authorship") - written works, art, music, architectural drawings, or even programming code for software (most evident nowadays in video game entertainment). With certain exceptions, copyrights allow the owner of the protected materials to control reproduction, performance, new versioning or adaptations, public performance and distribution of the works..(15,17,20)

#### **Copyright Protection**

Copyright protection is above all one of the means of promoting, enriching and disseminating the national cultural heritage. A country's development depends to a very great extent on the creativity of its people, and encouragement of individual creativity and its dissemination is a sine qua non for progress. Copyright constitutes an essential element in the development process. Experience has shown that the enrichment of the national cultural heritage depends directly on the level of protection afforded to literary and artistic works. The greater the number of a country's intellectual creations, the higher its renown; the greater the number of productions in literature and the arts, the more numerous their so-called "auxiliaries" (the performers, producers of phonograms and broadcasting organizations) in the book, record and entertainment industries; and indeed, in the final analysis, encouragement of intellectual creation is one of the basic prerequisites of all social, economic and cultural development. Legislation could provide for the protection not only of the creators of intellectual works but also of the auxiliaries that help in the dissemination of such works, in respect of their own rights. The protection of these auxiliaries of intellectual creators is also of importance to developing countries since the cultural achievement of some of these countries includes, in no small measure, performance, sound recording and broadcasting of different creations of their folklore as well. While developing countries are often in need of foreign books, especially in the field of science, technology, education and research, they could offer to the world an abundance of their national cultural heritage, which can be protected, within the framework of copyright legislation, through protection of the rights of these auxiliaries or of related (or neighboring) rights as they are called.(11, 16)

#### **Rights Comprised in Copyright**

The owner of copyright in a protected work may use the work as he wishes—but not without regard to the legally recognized rights and interests of others—and may exclude others from using it without his authorization. Therefore, the rights bestowed by law on the owner of copyright in a protected work are frequently described as "exclusive rights" to authorize others to use the protected work. The original authors of works protected by copyright also have "moral rights", in addition to their exclusive rights of an economic character. What is meant by "using" a work protected by copyright? Most copyright laws define the acts in relation to a work which cannot be performed by persons other than the copyright owner without the authorization of the copyright owner. 2Such acts, requiring the authorization of the copyright owner, normally are the following: copying or reproducing the work; performing the work in public; making a sound recording of the work; making a motion picture of the work; broadcasting the work; translating the work; adapting the work.(2,14,25).

# Ownership of Copyright

The owner of copyright in a work is generally, at least in the first instance, the person who created the work, that is to say, the author of the work. There can be exceptions to this general principle. Such exceptions are regulated by the national law. For example, the national law may provide that, when a work is created by an author who is employed for the purpose of creating that work, then the employer, not the author, is the owner of the copyright in the work. It is to be noted, however, that the "moral rights" always belong to the author of the work, whoever may be the owner of the copyright. In many countries, copyright (with the exception of moral rights) may be assigned. This means that the owner of the copyright transfers it to another person or entity, who becomes the owner of the copyright. In some other countries, an assignment of copyright is not legally possible. However, very nearly the same practical effect as the effect of assignment can be achieved by licensing. Licensing means that the owner of the copyright remains the owner but authorizes someone else to exercise all or some of his rights subject to possible limitations. When such authorization or license extends to the full period of copyright and when such authorization or license extends to all the rights (except, of course, the moral rights) protected by copyright, the licensee is, vis-à-vis third parties and for all practical purposes, in the same position as an owner of copyright.(15,27)

#### Procedure

Copyrights in general attach when the original works become fixed in a tangible medium, but should be registered with the government copyright office for optimal protection in the form of damages, injunctions and confiscation. Copyright registration applications are much simpler than patents or trademarks, and typically can be obtained by the author alone. The <u>US</u> Copyright Office encourages use of their online application system, and requires a sample of the work to be protected and some background information about the author.(14,23)

#### Costs

Depending on the type of work being protected, currently fees vary between \$25-\$100 in the US. The most frequent copyright registration sought is for one work by one author, and costs about \$35.(16.27)

#### **Infringement**

The rights of an owner of copyright are infringed when one of the acts requiring authorization of the owner is done by someone else without his consent. The unauthorized copying of copyright materials for commercial purposes and the unauthorized commercial dealing in copied materials is known as "piracy." Incidence of Piracy An essential part of piracy is that the unauthorized activity is carried on for commercial gain. This element of commercial gain implies that piracy will often be carried out on an organized basis, since not only is the unauthorized reproduction of a work involved, but also the subsequent sale or distribution of the illegally reproduced work, which will require some form of organized distribution network or contact with potential purchasers. To the consumer, often only the end of the chain of such a distribution network will be visible in the form of one sales outlet selling a pirated product. It is important to bear in mind, however, particularly when addressing the question of the means of dealing effectively with piracy, that behind one such outlet will often lie a systematically organized illicit enterprise, which illegally reproduces a copyrighted work and distributes it to the public via a number of such sales outlets. 2.234 While piracy is not a recent phenomenon, two developments have occurred which have caused it to assume alarming proportions, and to threaten the basis of the copyright system. 2.235 The first has been the advances in the means by which intellectual works may be communicated. The medium of the printed word has been supplemented progressively by media for communicating audio and visual recordings in the form of phonograms, music cassettes, films and video grams. Similarly, widespread commercialization of the computer has added a further means of recording and communicating information. Most recently, the advent of digital technology has had a tremendous impact on the creation, dissemination and use of works. 2.236 The copyright system has responded to these developments by progressively enlarging the subjects over which the creators of intellectual works are granted rights. These advances, however, have increased the scope for pirates to interfere in the control which an author exercises over the dissemination and use of his works by the public.(7,9,29)

# TRADE SECRET



Figure No. 04: Tradesecret.

Trade secrets are proprietary procedures, systems, devices, formulas, strategies or other information that is confidential and exclusive to the company using them. They act as competitive advantages for the business. (18,30).

## **Procedure**

There actually isn't a federally-regulated registration process for trade secrets. Instead, the onus is on the company in possession of the secret to take necessary precautions to maintain it as such. This is an ongoing, proactive process and can include clearly marking relevant documents as "Confidential," implementing physical and data security measures, keeping logs of visitors and restricting access. The issuance of nondisclosure agreements or other documented assurances of secrecy can also be employed. One of the first defenses typically put up when you assert that someone misappropriated your trade secret is that you failed to adequately treat it as a trade secret.(12,45)

#### Costs

Though there are no official registration costs, there are costs associated with taking appropriate precautions and security measures. You must weigh the competitive significance of your secrets against the cost of protecting them. (5, 22)

## **SUMMARY OF INTELLECTUAL PROPERTY RIGHTS (IPR):**

Intellectual property rights (IPR) refers to the legal rights given to the inventor or creator to protect his invention or creation for a certain period of time. [1] These legal rights confer an exclusive right to the inventor/creator or his assignee to fully utilize his invention/creation for a given period of time. There are several types of intellectual property protection like patent, copyright, trademark, etc. Patent is recognition for an invention, which satisfies the criteria of global novelty, nonobviousness, and industrial application. IPRs are generally understood to have two principal areas of impact in pharmaceuticals. First, there is the issue of pricing and access, where discussion focuses on the links between IPRs (particularly patent rights), exclusion of competitors and the availability and pricing of new medicines

# ACKNOWLEDGMENT OF INTELLECTUAL PROPERTY RIGHTS.

Executive agrees that all ideas, inventions, trade secrets, know-how, documents and data of any kind developed in connection with or pursuant to her employment with the Company are and shall remain the exclusive property of the Company. Therefore, to the extent not already assigned, Executive hereby assigns all such intellectual property rights to the Company and agrees to provide any reasonable assistance required by the Company to perfect or enforce such rights.

#### **CONCLUSIONS:**

The researcher concludes his study with the following findings –

- 1. The original idea of an invention in the mechanical domain was to grant protection to an inventor who had created an indigenous new device. However, today the scope of granting Intellectual Property Rights is not confined to mere technological inventions or inanimate objects but has been extended to plants, biological material and living organisms, thus making what was once God's creation into an individual's commercial venture.
- 2. It is perceived that inventions take place only in the backdrop of Intellectual Property Rights but the most important and useful inventions from the earliest times like fire and the wheel were without IPR protection. Even Newton's theory of gravity which has provided a platform for satellites and space technology was without IPR protection.
- 3. The importance of IPRs in the field of medicine and telecommunication cannot be denied. Because of IPR protection scientists and researchers were encouraged to develop a newer and better technology which ultimately changed the entire human life. The researchers and scientists must be adequately rewarded for their untiring and laborious efforts.
- 4. Biodiversity is one of the bigger wealths of the earth but it has not got its due recognition and importance. Biodiversity plays a very critical role in the day-to-day existence of entire humankind. Unfortunately, human activity, especially in the last few decades, has ended up causing large-scale loss of biodiversity.
- 5. Since the great majority of the world's species remain unexplored for their potential, there is no doubt that further revolutionary discoveries such as cures for various kinds of cancer, are in store. But we will be able to tap this potential only if we are able to save these species in the first place.
- 6. The fact that today seeds can be patented and plant varieties protected is hitting farmers hard because of the exorbitant royalties being demanded by plant breeders. An effective esui generis' system must be developed keeping in mind the specific requirements of the country.
- 7. Knowledge, innovation and biodiversity have evolved through community rights and community responsibility and the recognition of community rights is a precondition for the protection of biodiversity and the protection of people's rights.
- 8. Knowledge and resources flow freely from poor countries to rich countries. In the poorest countries a double loss occurs through the theft of their intellectual and biological wealth, and then through royalty payments for what has been derived from their innovations and biodiversity.
- 9. Traditional Knowledge is being usurped by developed countries. Biopiracy cases concerning Traditional Knowledge of products like neem, karela, turmeric, etc. keep occurring. If IPR systems are not changed to prevent bio-piracy, over time we will be paying royalties for what belongs to us and is necessary for everyday survival.
- 10. Community held and utilized biodiversity knowledge systems must be accorded legal recognition as the 'common property owned by the communities concerned.

#### **REFERENCES**

- 1. Singh R. Vol. 1. New Delhi: Universal Law Publishing Co. Pvt. Ltd; 2004. Law relating to intellectual property (A complete comprehensive material on intellectual property covering acts, rules, conventions, treaties, agreements, case-Law and much more)
- 2. New Delhi: Department of Science and Technology (DST), Government of India; 2002. Anonymous. Research and development statistics
- 3. New Delhi: Department of Scientific and Industrial Research, Government of India; 2002. Anonymous. Research and development in industry: An overview.
- 4. Bainbridge DI. New York: Longman; 2002. Intellectual property.
- 5. New Delhi: Universal Law Publishing Co. Ltd; 2004. Anonymous. The Design Act. 2000 along with Design Rules 2001.
- 6. New Delhi: Commercial Law Publisher (India) Pvt. Ltd; 2004. Anonymous. The Trademarks Act 1999 along with trade Marks Rules 2002.
- 7. New Delhi: Commercial Law Publisher (India) Pvt. Ltd; 2005. Anonymous. The Copyright Act 1957 as amended up to 1999 along with Copyright Rules 1958 and International Copyright Order 1999.
- 8. New Delhi: Universal Law Publishing Co. Ltd; 2004. Anonymous. The Geographical Indications of Goods (registration and protection) Act, 1999 along with Geographical Indications of Goods (registration and protection) Rules 2002. []
- 9. New Delhi: Commercial Law Publisher (India) Private Ltd; 2005. Anonymous. The Patents Act, 1970 as amended by Patents (amendment) Act 2005. []
- 10. Michaels A. 2nd ed. London: Sweet and Maxwell; 1996. A practical guide to Trade Mark Law.
- 11. Watal J. London: Kluwer Law International; 2001. Intellectual property rights in the WTO and developing countries.
- 12. 12. Abbott F, Cottier T, Gurry F. London: Kluwer Law International; 1999. The international intellectual property system: Commentary and materials.Part I.
- 13. Beier FK, Schricker G. Munich: Copyright and Competition Law; 1996. IIC studies: Studies in industrial property and copyright law, from GATT to TRIPS the agreement on trade related aspects of intellectual property rights. Max Planck Institute for Foreign and International Patent.
- 14. New York: WIPO Publication; 2001. Anonymous. WIPO intellectual property handbook. policy, law and use.
- 15. Gutterman AS, Anderson BJ. London: Kluwer Law International; 1997. Intellectual property in global markets: A guide for foreign lawyers and managers.
- 16. Bently L, Sherman B. Oxford: Oxford University Press; 2001. Intellectual property law.
- 17. Angell M. The Pharmaceutical Industry. To Whom Is It Accountable? N Engl J Med. 2000;342:1902-4.
- 18. Lexchin J. Intellectual property rights and the Canadian pharmaceutical marketplace: Where do we go from here? Int J Health Serv. 2005;35:237–56.
- 19. Mrudula BS, Durgadevi NK, Madhavi BR, Tejeswi B, Durga PV. Intellectual property rights pinpoint at IPR spotlights coveted R and D. Drug Inv Today. 2009;2:197–201.
- 20. Glasgow LJ. Stretching the limits of intellectual property rights: Has the pharmaceutical industry gone too far? IDEA J Law Technol. 2001;41:227–58.
- 21. Gottlieb S. Drug firms use legal loopholes to safeguard brand names. BMJ. 2000;321:320.
- 22. Kartal M. Intellectual property protection in the natural product drug discovery, traditional herbal medicine and herbal medicinal products. Phytother Res. 2007;21:113–9.
- 23. Subbaram NR. Hyderabad: Pharma Books Syndicate; 2003. What everyone should know about patentsShukla S. Patents: An Introduction. Indian Pharm. 2004;3:14–7.
- 24. Chaudhuri, S., Goldberg, P., Jia, P. (2006). Estimating the effects of global patent protection in pharmaceuticals: A case study of quinolones in India. American Economic Review, 96(5), 1477–1514.
- 25. Commission on Intellectual Property Rights (2002). Integrating intellectual property rights and development policy. Report of the Commission on Intellectual Property Rights, Professor John Barton (Stanford University), Commission Chair.
- 26. Duggan, M., Garthwaite, C., Goyal, A. (2016). The market impacts of pharmaceutical product patents in developing countries: Evidence from India. American Economic Review, 106(1), 99–135.
- 27. Lerner, J. (2002). 150 years of patent protection. American Economic Review Papers and Proceedings, 92(2), 221–225.
- 28. Lo, S.T. (2005). Strengthening intellectual property rights: Experience from the 1986 Taiwanese patent reforms. Working Paper.
- 29. Maskus, K.E. (2000). Intellectual property rights in the global economy. Washington, DC: Institute for International Economics.
- 30. McCalman, P. (2001). Reaping what you sow: An empirical analysis of international patent harmonization. Journal of International Economics, 55(1), 161–186.
- 31. McKendrick, D., Doner, R., Haggard, S. (2000). From Silicon Valley to Singapore: Location and competitive advantage in the hard disk drive industry. Stanford, CA: Stanford University Press.
- 32. Moser, P. (2013). Patents and innovation—Evidence from economic history. Journal of Economic Perspectives, 27(1), 23–44.
- 33. Okimoto, D.I., Rohlen, T.P. (1988). Inside the Japanese system: Readings on contemporary society and political economy. Stanford, CA: Stanford University Press.
- 34. McKendrick, D., Doner, R., Haggard, S. (2000). From Silicon Valley to Singapore: Location and competitive advantage in the hard disk drive industry. Stanford, CA: Stanford University Press.
- 35. Moser, P. (2013). Patents and innovation—Evidence from economic history. Journal of Economic Perspectives, 27(1), 23–44.

- 36. Okimoto, D.I., Rohlen, T.P. (1988). Inside the Japanese system: Readings on contemporary society and political economy. Stanford, CA: Stanford University Press. Ordover, J.A. (1991). A patent system for both diffusion and exclusion. Journal of Economic Perspectives, 5(1), 43–60.
- 37. Pesek, W. (2015, December 3). Life in the republic of Samsung. Barrons Online, Retrieved from http://www.barrons.com/articles/life-in-the-republic-of-samsung-1449106291
- 38. Poole, J. (2013). Knowledge transfers from multinational to domestic firms: Evidence from worker mobility. Review of Economics and Statistics, 95(2), 393–406.
- 39. Prestowitz, C. (1988). Trading places: How we allowed Japan to take the lead. New York: Basic Books.
- 40. Rohlen, T. (1983). Japan's high schools. Berkeley, CA: University of California Press.
- 41. Romalis, J. (2004). Factor proportions and the structure of commodity trade. American Economic Review, 94(1), 67–97.
- 42. Rosier, K., O'Connor, S., Cuevas, R. (2016). Taiwan's economy amid political transition. US China Economic Security and Review Commission Staff Research Report.
- 43. Sakakibara, M., Branstetter, L. (2001). Do stronger patents induce more innovation? Evidence from the 1988 Japanese patent law reforms. RAND Journal of Economics, 32(1), 77–100.
- 44. Vernon, R. (1966). International investment and international trade in the product cycle. Quarterly Journal of Economics, 80(2), 190–208.
- 45. Yang, C. (2008). The effects of strengthening intellectual property rights in NIEs. Contemporary Economic Policy, 26(2), 22–37.
- 46. https://shodhganga.inflibnet.ac.in/bitstream/10603/59930/13/13\_conclusion%20and%20recommendations.pdf, https://www.google.com/search?sxsrf=ACYBGNSUnieEuYijc62SiXGKKcgVBJkfKw%3A1580626849013&ei=oXM2Xpo4x77 ctQ\_jgY3IAQ&q=summary+of+ipr&oq=Summof+IPR&gs\_l=psy-ab.3.0.0i7i30.3084.3796.4860...0.2..0.247.898.0j1j3.0.1.gws-wiz.0i71j0i13.53JvxZIaoI8



