B. INTELLECTUAL PROPERTY

by
Roderick Darling and Marvin Friedlander

Behold, I make all things new.
Revelation 21:5, The Holy Bible, King James Translation.

I think; therefore, I am.
Rene Descartes (1596-1650); French philosopher.

The Congress shall have the power to promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors exclusive Right to their respective Writings and Discoveries.
Constitution of the United States of America, Article I, Section 8.8; 1787.

$E=mc^2$
Albert Einstein (1879-1955); American physicist.

Hello, Dolly.
The Washington Post, 1997.[1]

1. Introduction

The human capacity for intelligence, creativity, and collaboration produces an abundance of new information, inventions, and artistic creations. Insofar as these fruits of the mind are afforded legal protection, they constitute intellectual property.

Like other property, intellectual property may be commercially exploited. This article describes the common types of intellectual property and discusses the tax issues that may arise when exempt organizations are involved in their production and exploitation.

2. Basis of Intellectual Property Rights

A. Common Law

The economic institutions of the Middle Ages laid the groundwork for the development of intellectual property rights. Practitioners of skilled crafts such as metal smithing developed among themselves associations known as guilds to uphold the quality and integrity thought to be associated with the practice of skilled trades. The practice of

[1] A headline in reference to the first cloned sheep.

the trade included honest identification of the creator of a product by a unique identifying symbol. This symbol, or mark, could not properly be used by some other craftsman. Another version of this idea is the branding of livestock to show to whom they belong. Altering the brand, or improperly using the mark of another, are practices prohibited by the early trade associations and incorporated into the English common law by judicial decision. Later, rights developed at common law were transformed into statutory law.

Despite the modern trend to codification, some intellectual property rights are still based on case law and judicial precedent. For example, the law relating to trade secrets has been codified in many states under the Uniform Trade Secrets Act (UTSA), but judicial decisions are still the only source in other states.

B. Statutes

The primary source of rights in intellectual property today is federal statutory law. These statutes create specified rights and prescribe methods for obtaining legal recognition of the right to commercially exploit the property. Remedies for violation of the right may be specified in the statute or may have to be pursued in the courts under common law tort theories. Major federal statutes related to intellectual property rights are discussed below.

(1) Patents

Under 35 U.S.C. sections 1 et seq., a patent is available to a person who "invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." Letters conferring the patent are issued by the United States Patent and Trademark Office upon application and determination that the statutory standards are satisfied. The letters give patent holders the exclusive right to make, use, or sell the invention or process within the United States for a specified period of years. Subsequent improvements to a patented product, whether by the original inventor or others, may also be entitled to patent protection.

A patent is not renewable. However, by continuing to make and patent improvements to the original invention, a patent holder can continue to enjoy a monopoly on the most technically advanced version of a product even though competitors may be legally entitled to freely produce and market an earlier, obsolete version of the same product.

Despite the plain language of the statute, a patent does not necessarily belong to the person who creates a patentable product or device. This result flows from a legal concept known as the doctrine of works for hire. An illustration of the doctrine's application can be found in the case of a Czech immigrant named Petr Taborsky.

The February, 1997 issue of Time magazine contains an article by Leon Jaroff describing Mr. Taborsky's case. According to the article, in 1987 Mr. Taborsky was a student and a lab assistant at the University of South Florida. The University engaged in a commercially sponsored research project for a power company in an unsuccessful attempt to discover a process for cleaning and reusing materials used in cleaning water to be used in generating electricity. Mr. Taborsky was assigned to do menial jobs in connection with the research project.

After the University abandoned the project, Mr. Taborsky continued to think about it and he engaged in further experiments of his own that eventually produced a method that appeared to be capable of achieving the desired result. He approached the power company with his findings and sought compensation for his efforts. The power company declined to pay Mr. Taborsky anything on the grounds that whatever processes were developed came about as a result of the contract research project and already belonged to it under the terms of the research contract.

Mr. Taborsky's efforts to maintain possession of the notebooks which contained his research findings led to the filing of criminal charges by the University accusing Mr. Taborsky of grand theft of trade secrets. In 1990 Mr. Taborsky was tried and found guilty of the charges and sentenced to house arrest. He was also ordered not to use or attempt to profit from his notes or his invention. Despite the court's order, Mr. Taborsky filed for patents on his invention. After poring over Mr. Taborsky's notes for several months, the power company also filed for patents. The Patent Office awarded the patents to Mr. Taborsky. When Mr. Taborsky refused to assign his patents to the University, the judge in the criminal case ordered him to prison for three and one-half years. Mr. Taborsky declined to accept the Florida governor's offer of a pardon on grounds of conscience. At the time the article was written, he was scheduled to be released in April of 1997.

(2) Copyrights

Section 17 U.S.C. sections 1 et seq. provide for copyright protection for "original works of authorship fixed in any tangible medium of expression...from which they can be perceived, reproduced or otherwise communicated." The protection arises upon creation of the work but enforcement of the right requires registration with the United States Register of Copyrights upon application and deposit of copies of the work. The term of the copyright is a specified period and it is renewable. The rights reserved to the copyright owner by section 106 of the Copyright Act are (1) to reproduce the copyrighted work; (2) to prepare derivative works based on the copyrighted work; (3) to distribute copies of the copyrighted work for sale, lease, or lending; (4) in the case of literary, musical, dramatic and choreographic works, pantomimes and motion pictures and other audio visual works, to perform the copyrighted work publicly; and (5) in the case of literary, musical, dramatic, and choreographic works, pantomimes and pictorial, graphic, or sculptural works, to display the copyrighted work publicly.

A right known as common law copyright existed prior to the enactment of statutory protection. The right extended to works given only very limited circulation and was more akin to a privacy right than a right to commercial exploitation. The extent to which copyrights that existed at common law in the various states have been preempted by revisions to the federal statute in 1976 is the subject of scholarly debate.

As with patents, the doctrine of works for hire may operate to place the copyright in someone other than the person who actually creates the product that is entitled to copyright protection.

(3) Trademarks/Service Marks

A trademark is a symbol, design, or word used to identify the maker of a commodity offered for sale. Service marks perform a similar function involving the sale of services. Trademarks are still recognized under common law standards if actually used in commerce. Trademarks can also be registered with the United States Patent and Trademark Office. Statutory actions provide various remedies for trademark infringement, including damages and injunctive relief. See 15 U.S.C. sections 1114 et seq. Actions for infringement may also be brought as common law torts. Registration is for a specified period and it is renewable.

3. Federal Tax Treatment of Research and Development

The federal statutory protection for inventions and other original creations is the foundation of a national industrial policy that encourages scientific research and development. That policy is also effectuated by according favored tax treatment to research by both commercial and exempt organizations.

The basic section dealing with research expenditures of commercial entities is IRC 174. Under this section, any taxpayer may elect to treat research or experimental expenditures made in connection with a trade or business as a deduction from current income or as an amortized expense spread over a period of not less than 60 months.

Credits against tax are currently provided to encourage commercial research and development relating to "orphan drugs" (drugs the market for which is severely limited by the small number of persons suffering from the condition the drug treats) by IRC 280C. Expenditures for research directed to finding a cure for rare diseases or conditions enjoys similar treatment under IRC 45C. IRC 41 provides a credit against tax to commercial entities that increase their expenditures for research activities.

The unrelated business income tax provisions contain three "carve outs" for income derived by an exempt organization from research activities.

IRC 512(b)(7) excludes from the unrelated business income tax income derived from research for the United States, its agencies, and instrumentalities and income derived from research for any state or political subdivision thereof.

IRC 512(b)(8) excludes from the unrelated business income tax income derived from research performed for any person by a university or hospital.

IRC 512(b)(9) provides for the exclusion of income derived by research for any person by an organization operated primarily for purposes of carrying on fundamental research the results of which are freely available to the general public.

Public charity status under IRC 170(b)(1)(A)(iii), and therefore freedom from private foundation excise taxes, is accorded to medical research organizations described in Reg. 1.170A-9(c)(2)(i). The provision applies to a medical research organization if its principal purposes or functions are medical research and it is directly engaged in the continuous active conduct of medical research in conjunction with a hospital.

The scientific regulations under IRC 501(c)(3) finalized in 1961 make clear that commercially sponsored scientific research projects conducted by exempt scientific research organizations promote charitable purposes provided the public benefit standards of the regulations are satisfied. For a discussion of the scientific regulations, see the Appendix to this article, which is a reprint of an earlier CPE article on scientific research organizations.

4. Commercial Utilization of Federal Technology

The Stevenson-Wydler Technology Innovation Act of 1980 and the Federal Technology Transfer Act of 1986 as amended are codified as 15 U.S.C. sections 3701 et seq. The purpose of these acts is "to ensure the full use of the results of the Nation's Federal investment in research and development. To this end the Federal Government shall strive where appropriate to transfer federally owned or originated technology to State and local governments and to the private sector." 15 U.S.C. section 3710(a)(1). The statute provides detailed requirements governing the establishment and operation of a federal laboratory consortium devoted to seeing to it that the objectives of the statute are achieved.

The Bayh-Dole Patent and Trademark Act of 1980 gives universities, nonprofit organizations and small businesses the rights to inventions resulting from research supported with federal grants. The intent is that the patent holders will license the inventions to commercial enterprises who will in turn market the products or inventions resulting from the commercial applications of the patent. This act also requires that royalties be shared with the inventor or inventors.

5. Government Funding for Research

During the Cold War, projects commissioned by the Defense Department were a primary source of funds for research in applied technologies such as computer science and physics. The National Science Foundation and the National Institutes of Health continue to fund much of the research conducted in the health sciences. According to the Office of Technology Assessment, an analytical arm of Congress, over 60 percent of all health-related academic and nonprofit research facilities built between 1958 and 1968 were financed with 50-50 matching funds available through the Federal Health Facilities Research Act (Ch. 779, 70 Stat. 717). The federal government has thus taken a direct, as well as an indirect, role in encouraging research and development.

6. Exploiting Intellectual Property Rights

There are two basic vehicles for producing and allocating income from the commercial exploitation of intellectual property. A person or organization may be granted an ownership share or equity interest in the property or a contractual arrangement known as a licensing agreement may be used to transfer specified rights in the property. The specific arrangements employed vary depending upon the nature of the property and the types of organizations involved. A typical arrangement, described in an article by Associated Press writer Rich Callahan, appeared in The Washington Post in March of 1998, which could well have been entitled "Living High on the Hog."

According to the article, researchers at the Hillenbrand Biomedical Engineering Center at Purdue University discovered in 1987 that a material they had developed from the intestines of hogs had a potential for promoting the growth of new blood vessels, an ability which enhanced the healing process in wounds. By January 1998 the researchers had obtained permission from the Food and Drug Administration to use the material in 12 patients to replace ligaments in their injured knees. These clinical trials were to be conducted by teams of doctors at three locations, including orthopedic surgeons on the faculty of the medical school at the University of Colorado. The article describes the successful results achieved by the Colorado doctors in the case of James McDonald, a ranch caretaker.

The material itself, known as small-intestinal submucosa (SIS), is described as "a complex matrix of collagen that is easily malleable." The article quotes Dr. Stephen F. Badylak, Director of the Biomedical Engineering Center at Purdue, as describing the material as follows:

> "You can dry it, you can powder it, inject it, you can take a sheet and make it into strips and then braid it and add tensile strength to it. You can make it into a tube. There just seems to be almost no end to what we might use it for."

The commercial potential of SIS was recognized by Purdue's Office of Technology Transfer, which licensed four commercial companies to use SIS. Two of the companies were licensed for a variety of orthopedic uses. One of them made the material that was used to repair James McDonald's knee. A third Company purchased an option for all other possible applications of SIS except hernia repair, an application being developed under license by a fourth Company. If SIS is found to perform well in the clinical trials, the hope is that it will become available for use in over 50,000 cases of surgery performed annually to repair or replace the anterior cruciate ligament of the knee.

One of the remarkable qualities of SIS is that although it is derived from hog intestines, after the production process is completed it contains no individual hog cells whatsoever. This virtually eliminates the possibility that it could transmit hog borne diseases to humans.

As the SIS case illustrates, collaboration among exempt and for-profit entities is typical of the arrangements for the exploitation of rights in intellectual property. The types of issues such collaboration is likely to raise are illustrated by the following hypothetical cases.

A. Example 1 – Exploiting a Copyright

Richard Roe is nearing the end of a long and illustrious career with a government agency. He writes a book (on his own time and using his own equipment) purporting to reveal the inner workings of the agency. Richard obtains a copyright of the book. Awful Truth Magazine, the monthly publication of a tax exempt organization devoted to exposing waste and fraud in government, agrees to publish the book in installments and pays Richard $2,000 for the right of first publication.

At about the same time, Richard enters into a contract with Doom University Press (Doom), an exempt organization, giving Doom the exclusive right to produce and distribute hard cover copies of the book in a volume of not less than 25,000 copies within a period of 2 years from the date of publication of the last installment of the book by Awful Truth Magazine. Doom agrees to pay Richard a royalty of 15 percent of the price of each book sold by Doom. Doom also receives an option to publish and distribute another 25,000 hard cover copies of the book in a second edition if more than 10,000 copies of the first edition are sold within 1 year of the date of the publication of the last installment of the book in Awful Truth Magazine. Royalties on the second edition will be 10 percent of the purchase price of each book sold. Doom also receives a right of first refusal to purchase the copyright in the book in the event Richard wants to sell it. Doom advances Richard $2,000 against future royalties. In a side agreement with Doom University (Doom U), Richard agrees to appear and give a series of lectures at Doom U at a time to be mutually agreed upon by Doom U and Richard. Expenses associated with the lectures will be borne by Doom U. Doom U retains the right to charge admission for the lectures. If admission is charged, Richard will receive 10 percent of the admission proceeds.

Richard creates a private foundation, Roe Foundation, and gives it the copyright to the book. Roe Foundation enters into an agreement with Paperback Publishers (Paperback) giving Paperback the exclusive right to publish unlimited copies of the book in paperback form for the remainder of the period of the copyright and the renewal period following the expiration of the hard cover rights granted to Doom. Paperback agrees to pay Roe Foundation a 5 percent royalty on each book sold or distributed by Paperback. Paperback gives Roe Foundation a $500 advance against future royalties.

Richard claims a contributions deduction of $50,000 on his personal income tax return for the value of the copyright given to Roe Foundation. Doom learns of the contribution and sues Richard, Roe Foundation, and Paperback Publishers alleging violation of its right of first refusal to purchase the copyright. Roe Foundation, Paperback and Richard defend against the suit with Roe Foundation and Paperback sharing equally in the legal expenses involved. Richard pays nothing. Roe Foundation applies for recognition of exemption under IRC 501(c)(3).

B. Example 2 - Exploiting a Trademark

Boohoos International is a fraternal organization exempt from federal income tax under IRC 501(c)(8). Boohoos owns a trademark consisting of a design of an adorable puppy with a big tear rolling out of the corner of one eye. The Boohoos dog design is known and loved by all.

Boohoos charters subordinate lodges and in such charters it licenses the subordinates to use the Boohoos trademark in accordance with terms and conditions specified in the charter. These terms and conditions allow the subordinate to use the symbol on its letterhead and on signs, advertising, and other public displays. In order to continue to enjoy the right to use the trademark, subordinate lodges must submit monthly reports of their activities to Boohoos International and not engage in any activities that would tend to bring Boohoos International, Boohoos subordinates, or the Boohoos trademark into disrepute. Boohoos may, in its sole discretion, terminate the licensing agreement at any time if the monthly reports indicate that the subordinate is not performing to the satisfaction of Boohoos International or Boohoos International determines that the subordinate has engaged in activities tending to diminish the public's esteem for Boohoos or the trademark. Satisfactory performance also includes timely forwarding to Boohoos International of a specified portion of the monthly dues paid by the subordinates' members.

Boohoos International has entered into a licensing agreement with Commercial Marketing Company. The licensing agreement gives Marketing Company the right to use the Boohoos dog trademark on an expensive (and tasteful) line of pens, t-shirts, coasters, cups, glasses, plates, watches, shirts, coats, caps, key holders, and golf balls which are offered for sale through the subordinate lodges. Marketing Company pays Boohoos International a royalty of 5 cents on each key holder and increasing amounts for each of the other specified items reaching an upper limit of $5 for each watch purchased for resale by the subordinate lodges. The subordinate lodges are not required to purchase merchandise for resale, but are not allowed to purchase substantially similar items from any source other than Marketing Company. Boohoos lodges that do purchase merchandise for resale are entitled to retain 90 percent of the net profits on the sales. The other 10 percent is remitted to Boohoos International. Sales are exclusively to members of the local Boohoos lodges.

As part of an Internal Revenue Service examination of Boohoos International, the IRS agent attempts to treat the 10 percent of net profits on merchandise sales received by Boohoos International as unrelated business taxable income. Boohoos International argues that the payment is a royalty and as such is excluded from Boohoos International's unrelated business taxable income by section 512(b)(2) of the Code. Alternatively, Boohoos argues that the sales of the articles with the identifying logo exclusively to members of its subordinate lodges promotes a feeling of identification with the lodge and its members and is therefore related to Boohoos International's exempt purpose.

C. <u>Example 3 - Exploiting a Patent</u>

Midsized University (MU) is a state university that includes a college of the health sciences and an associated teaching hospital. Midsized University Research Institute (MURI) is a wholly owned exempt affiliate of MU. Dr. Joe Smith is employed by MU and MURI. Dr. Smith holds doctoral degrees in medicine and animal genetics and has 12 years of post doctoral research experience. He is an associate professor on the University faculty and a lead researcher in MURI. MURI's board of directors is appointed by MU and does not include Dr. Smith.

Under Dr. Smith's direction, MURI has developed a colony of laboratory mice that have been genetically altered so that they are predisposed to developing squamous cell carcinoma, a cancer of the skin that can metastasize to other organs. These mice are used in research studies to determine the effectiveness of various potential cancer treatments. The studies to date have been funded primarily by federal grants from the National Institutes of Health (NIH).

Based on the information gleaned from the studies funded by NIH, Dr. Smith's team has developed a process for determining with 80 percent certainty whether a lab mouse will develop a squamous cell carcinoma before puberty at one of several specific sites on its skin. A patent is pending on the process and if granted the patent will be owned by MURI. Administrators at MURI believe that further research over a period of 3 to 5 years will be necessary to determine whether the information gleaned from the mouse studies will have practical applications for early detection of cancer in human beings.

Iddy Biddy Pharmaceuticals, Inc. (Iddy Biddy) is a for-profit enterprise that is jointly owned by two individuals, Dr. Doakes and Dr. Stokes. From time to time Iddy Biddy has contracted for research studies to be done by MURI using its genetically engineered mouse colony. The results of that research have enabled Iddy Biddy to develop a process for identifying certain precursor chemicals in the blood of such mice which can be used as predictors of skin cancers even though the cancers are not presently detectable using existing technology. The process is 95 percent accurate in predicting whether a visible cancer of the skin will develop within 30 days in an apparently cancer free mouse. Iddy Biddy is holding this process as a trade secret.

MURI has decided to undertake further research to develop a commercially marketable means of predicting whether, where and when a skin cancer is likely to develop in an adult human being. If a marketable product is developed as a result of the research, MURI may exploit it commercially itself by entering into partnerships with for-profit entities or it may elect to license others to manufacture and sell the invention. In furtherance of its research and development effort, MURI proposes to give Iddy Biddy a five percent interest in the royalties derived from the undertaking in exchange for Iddy Biddy's agreement to share its proprietary information with MURI. MURI further proposes to give each of Drs. Smith, Doakes and Stokes annual salaries of $20,000 per year, each, for a period of five years in exchange for their agreement to work on the project on a part time basis. MURI will also give Dr. Smith a five percent interest in the royalties derived from the undertaking in exchange for his work on the project. MURI has requested a ruling that undertaking the project will not jeopardize its status as an organization exempt from federal income tax under IRC 501(c)(3).

D. Example 4 - Exploiting a Trade Secret

Ernestine Smith is the founder, principal officer and sole stockholder of Bon Ton Cuisine, Inc. (Bon Ton) a for profit enterprise whose business is marketing its own line of diet desserts.

Ms. Smith has developed an organic food product known as Fernaise, which can be used in place of ordinary flour in recipes for breads, cookies, cakes, etc. According to Ms. Smith, Fernaise supplies all nutrients known to be necessary for human health and contains only a small percentage of the calories of an equivalent amount of ordinary refined flour.

The ingredients of Fernaise appear on the label in compliance with state and federal regulations relating to the sale of foods and beverages. However, the proportions of the whole represented by the various ingredients and the culinary techniques used in transforming the ingredients into Fernaise are a trade secret.

Ms. Smith has created the Bon Ton Foundation and serves as its sole trustee, President and Treasurer. Ms. Smith has transferred to Bon Ton Foundation the recipe for Fernaise. Bon Ton Foundation has licensed Bon Ton to prepare and market Fernaise in its line of diet desserts in exchange for a royalty of 2 cents per unit of Fernaise sold by Bon Ton. This income will be awarded as scholarships to low income individuals.

Bon Ton Foundation has applied for recognition of exemption under section 501(c)(3) of the Code.

7. Resolving Case Problems

Although the examples given above relate to situations that are factually complex, the exempt organizations issue ultimately posed in each case is whether private individuals are unjustly enriched through the medium of an exempt organization. The answer depends to a large extent on whether the activities described are conducted in a manner that is usual and customary in the industry and between parties that are dealing with one another at arm's length.

A. Example 1 - Discussion

Consider the book contract between Richard Roe and Doom. The "industry" of exempt university presses consists of a couple of dozen organizations. They typically publish 3 or 4 books a year. By way of comparison, a middle sized commercial publisher will bring out 100 to 150 titles a year; a large publisher will publish 350 titles a year. The typical press run of a university press is 500 books. Commercial publishers do press runs in the tens of thousands of books. Royalties of 5 percent for the author are the norm for university presses and sizable advances against royalties are not generally paid. Commercial publishers may offer authors royalties of up to 15 or 20 percent and advances are typically several thousand dollars. If a book published by a university press sells over 1,000 copies in five years it is considered to be a runaway best seller. A typical title would be an item such as Norwegian Settlement in the Upper Counties between 1820 and 1910, an Historical-Analytical Survey Based on a Study of Norwegian Surnames in the Land Records, funded in part by a grant from the Friends of Norway in America. All editions are soft cover.

The justification for the existence and exemption of university presses is that they publish items that are a valuable addition to knowledge or the arts but that have no attraction to a for-profit publishing house. Given the norms in the industry, it is apparent that Doom is not operating like the typical university press.

In the context of exempt organizations tax law, the following precedents provide useful guidance in distinguishing a commercial publishing operation from an exempt one: Rev. Rul. 67-4, 1967-1 C.B. 121; Rev. Rul. 77-4, 1977-1 C.B. 141; Saint Germain Foundation v. Commissioner, 26 T.C. 648 (1956); Scripture Press Foundation v. United States, 285 F.2d 800 (Ct. Cl. 1961); Christian Manner International v. Commissioner, 71 T.C. 661 (1979); Pulpit Resource v. Commissioner, 70 T.C. 594 (1979); and Presbyterian and Reformed Publishing Company v. C.I.R, 743 F.2d 148 (3rd Cir. 1984). These authorities support the view that if the Richard Roe book is typical of Doom's publication endeavors, its exempt status as an educational organization might well be jeopardized.

However, the more immediate concern is whether Roe Foundation is entitled to exemption. Rev. Rul. 55-231, 1955-1 C.B. 72, holds that an organization whose primary purpose is to promote the circulation of the books of one of its incorporators and whose activities consist of purchasing such works and making them available for public use is not organized and operated exclusively for educational purposes. Rev. Rul. 55-231 is not directly applicable here since the Foundation rather than the individual is entitled to receive the royalties from book sales. Nonetheless, it may be argued that Roe Foundation is merely a device for giving Richard a basis for claiming a grossly inflated contributions deduction for his gift of the copyright in the book. Richard can give only what he has got, and at this point Richard apparently does not have much to give. The rights to publication throughout the original and renewal portions of the copyright period have already been transferred to others. So all Roe Foundation is going to get during this period are the royalties on book sales that would have been paid to Richard. Since the amount of these royalties is highly speculative, it may be argued that there is no rational basis for assigning a value of 50,000 dollars to the rights given to Roe Foundation.

Of course, this argument fails to recognize the fact that a copyright is more extensive than a right to publish books and receive royalties on the sales. A copyright includes the right to produce derivative products based on the book. Derivative products can include the right to portray the events and/or characters in the book through another medium, such as motion pictures. If one or more motion picture companies have approached Richard exploring the possibility of purchasing the movie rights to the book, their offers could easily be in the \$100,000-\$200,000 range. If that state of affairs exists, then Roe Foundation may in fact be in possession of a valuable right and Richard's claimed contributions deduction may not be inflated after all.

Another issue remains, however, and that is whether Roe Foundation, by sharing litigation expenses with Paperback Publishers, has borne some of the expenses of Richard's legal defense in the Doom suit. It is true that Roe Foundation was required to defend itself against the groundless claims of Doom to avoid loss of its copyright through a default judgment. It is also true that Richard could have chosen to remain silent and mount no defense to the suit at all. In this circumstance Richard is defending himself in part with Foundation assets and without any cost to himself even though he has a financial interest in the outcome of the suit through the claimed charitable contribution. Therefore, by sharing in the payment of Richard's legal expenses, Roe Foundation conferred an undeserved benefit on Richard.

B. Example 2 - Discussion

In the Boohoos case, the examining agent points out to Boohoos that, generally speaking, a royalty is a payment for the use of a valuable right and it typically relates to the amount of use made of the right. A royalty is not a payment for the provision of services. If the right of use is coupled with a duty in the grantor to perform services, the payment received by the grantor is not a royalty. See Rev. Rul. 81-178, 1981-2 C.B. 135; Sierra Club Inc. v. Commissioner, 78 AFTR2d Para. 96-5002 (9th Cir. 1996), aff'g T.C. Memo 1993-199, rev'g 103 T.C. 307 (1994).

Sharing in a percentage of net sales proceeds while providing services related to the exploitation of intellectual property is characteristic of a joint venture rather than a royalty arrangement. Here, the Boohoos subordinate actually sells the product to the customer and Boohoos International sees to it that the product exists and is enhanced in value and salability by bearing its trademark. Then, the marketing company, the Boohoos subordinate and Boohoos international divide the net profits according to a prearranged formula. Based on these facts, the income received by Boohoos International as its share of net sales proceeds is probably not excluded from unrelated business taxable income under IRC 512(b)(2) as a royalty.

The agent is also unimpressed by Boohoos' argument that the sale of items bearing the trademark is substantially related to achieving its exempt purpose of promoting camaraderie among its members. The agent knows that Boohoos relies on a variety of means to promote feelings of loyalty and identification among its members. For example, the Boohoos have a secret handshake and other unobtrusive signals for identifying themselves to one another. They also collectively perform secret ceremonial rituals at their monthly meetings. As part of these rituals, they wear costumes and use ceremonial objects bearing the Boohoos trademark. In this context, the use of the Boohoos trademark does contribute importantly to the accomplishment of the Boohoos exempt purpose. But, when the trademark is affixed to golf balls, watches, and the like, an isolated purchase of the object bearing the trademark reflects only the private taste of the individual making the purchase. Such a purchase does nothing to produce group loyalty or cohesion because only a single individual is involved. A fondness for the Boohoos trademark in this context is not confined to lodge members. The Boohoos whimsical symbol is regarded fondly by the world at large. The agent is, therefore, correct in concluding that the sales do not contribute importantly to the attainment of Boohoos' exempt purpose and that Boohoos is, therefore, liable for unrelated business income tax on its income from merchandise sales to its members.

The fact that Boohoos is not allowing its trademark to be exploited outside the context of the lodge system itself cuts both ways. One argument is that if purely commercial exploitation is the goal, then the adorable dog symbol should be appearing on stationery, jewelry, and every other conceivable item which might be purchased at retail by the general public. Since royalties constitute only pennies on the dollar, it is important to maximize sales if the generation of profits is the objective of the arrangement. However, a commercial franchisee is also typically restricted by the franchisor in ways thought necessary to maintain the franchisor's reputation. It could be argued that restricting the sales to Boohoos lodges imparts a certain cachet to the product that actually increases its commercial value.

C. Example 3 - Discussion

The situation involving the research institute is not as novel as it may appear. The issue finally boils down to one of reasonable compensation and reasonableness of payments for goods and services obtained from non-employees that are necessary to the accomplishment of an organization's exempt purposes. To help decide this issue, it is important to determine whether other similar institutes engage in comparable arrangements with their employees and providers of goods and services.

Universities and research institutes typically have written policies regarding employees sharing in patent royalties and the taking of equity interests in lieu thereof. Some of them maintain sites on the Internet where the latest versions of the policy are available. A comparison of these policies with that of MURI would reveal that MURI is, if anything, less generous to its employees and providers than the larger institutes with which it must compete for talent. In the facts as presented, three highly qualified researchers are already well on the way to inventing a useful product with a great potential for commercial application. The thrust of their efforts will be enhanced by their sharing knowledge and working together. Thus, the potential for the creation of a useful, marketable invention is very high. Given the low wages that they will receive during their relatively long (five year) commitment to the project and the arm's-length standard employed to arrive at the arrangement, an equity stake or share of royalties in the project is probably not only reasonable but necessary to assure that they will not "bolt" and form their own company to conduct the research and development activities necessary to bring a useful product to market. In these circumstances, the arrangements with the individual researchers do not serve their private interests to an impermissible degree. Of special significance is that the institute dealt with its researchers under clearly articulated arm's-length standards.

In deciding questions of reasonableness, Rev. Rul. 97-21, 1997-18 I.R.B. 8, sets forth standards that can be applied in both employee and non-employee situations to help determine whether payments or financial incentives result in an organization violating the requirement under IRC 501(c)(3) that an organization operate exclusively for charitable purposes. The employee standard is one of reasonable compensation for the services provided. The non-employee standard consists of the following four requirements. Does the activity bear a reasonable relationship to the accomplishment of the organization's exempt purposes? Is the activity one, which results in inurement of net earnings of the organization to a private shareholder or individual? Does the activity serve private interests rather than public interests to such an extent as to justify a conclusion that the organization has more than an insubstantial nonexempt purpose? Does the activity accomplish substantial unlawful purposes?

The commercialization project is, however, intended to be an income producing activity for MURI and as such it may be subject to unrelated business income tax. To escape the unrelated business income tax, the activity producing the income must either be scientific research carried on in the public interest as described in Reg. 1.501(c)(3)-1(d)(5)(iii)(c) or be excepted from treatment as unrelated business income by IRS 512(b)(2) (royalties), 512(b)(7) (research for governmental units), 512(b)(8) (performed by a university or hospital), or 512(b)(9) (fundamental research, results freely available to the general public).

Under Reg. 1.501(c)(3)-1(d)(5)(iii)(c), scientific research will be regarded as carried on in the public interest if the research satisfies one or more of the following criteria: (1) the research is carried on for the purpose of aiding in the scientific education of college or university students; (2) the research is carried on for the purpose of obtaining scientific information, which is published in a treatise, thesis, trade publication, or in any other form that is available to the interested public; (3) the research is carried on for the purpose of discovering a cure for a disease; or (4) the research is carried on for the purpose of aiding a community or geographical area by attracting new industry to the community or area or by encouraging the development of, or retention of, an industry in the community or area.

Arguably, the research project to perfect a technique for the early detection of skin cancers might qualify as research directed to discovering a cure for a disease. However, let us assume that MURI realizes that the project could also be considered to be directed toward improved diagnosis of the disease rather than its cure. In that case, it might want to assure itself that the research would qualify as scientific research in the public interest within the meaning of (2), above, by publishing the results of the research in a timely fashion.

The publication requirement is satisfied if publication is delayed for a reasonable length of time to allow applications for patents to be filed. However, in order to obtain a patent, one must disclose in detail how the device or process works. Under the facts as presented, it appears likely that Drs. Doakes and Stoakes would not enter into this arrangement if it resulted in public disclosure of the know how they are holding as a trade secret. Therefore, patents are not likely to be sought and the results of this research are probably not going to be disclosed to the general public. The exceptions provided by IRC 512(b)(7), (8), and (9) are not applicable. Accordingly, any income eventually produced as a result of the commercialization project is going to be treated as unrelated business taxable income unless it meets the royalty exception under section 512(b)(2) of the Code.

Another issue raised by this fact pattern can be examined if we assume that the project is successful and that Drs. Doakes and Stoakes do not object to disclosure of their trade secret in connection with MURI's obtaining a patent on the commercial diagnostic device developed as a result of the project. If MURI then licensed Iddy Biddy as the sole producer of the device, MURI would receive royalties on the sales of the device and the royalties would be excluded from unrelated business income tax by IRC 512(b)(2). However, giving Iddy Biddy an exclusive license would result in providing it an impermissible private benefit unless the grant of an exclusive license is the only practical way to exploit the patent. See Reg. 1.501(c)(3)-1(d)(5)(iv)(b).

Another potential threat to MURI's exempt status arises if it becomes too deeply involved in this and other commercialization projects that do not satisfy the requirements for treatment as scientific research in the public interest. If such projects begin to consume a substantial portion of MURI's money, time, and efforts, a plausible argument could be made that MURI has a substantial nonexempt commercial purpose. To avoid this possibility, MURI may decide to spin off its commercialization efforts to a separately incorporated for-profit subsidiary.

Employees of a for-profit subordinate, whether also employed by the exempt organization or not, may be compensated with stock or stock options. However, such persons should not be in positions of authority within the exempt organization, such as a principal executive or board member. For an actual case example, see PLR 953009.

PLR 953009 (April 21, 1995) describes an exempt organization which, after forming a wholly-owned, for-profit subsidiary to commercially develop its technology under a license arrangement, intends to permit its subsidiary to compensate the subsidiary's employees through a stock option plan. In this case, all transactions between the exempt organization and its subsidiary were to be conducted on an arm's-length basis, any officers of the subsidiary who were to participate in the stock option plan were not also officers or directors of the exempt organization, the value of options and stock would be based on their then fair market value, and such value would constitute part of reasonable compensation.

The reason for giving employees stock or stock options is to retain employees and reduce employment costs. The employees are willing to accept lower cash salaries in the short term in the hopes that they can have an owner's share in a successful business later on. These arrangements are fact specific and will be the subjects of private letter rulings as such arrangements are put before us.

An exempt organization cannot offer employees stock or stock options in itself. Nonetheless, it has to compete for talent with for-profit organizations that offer a variety of compensation arrangements. In competing for and retaining talented employees, the exempt organization may allow its employees to share in royalties or even profits from exploitation of the intellectual property, such as the licensing of a patent, provided the arrangement results in reasonable compensation, taking into account the norms in the industry. However, compensation cannot be provided in a manner that, in effect, results in a distribution of the net profits of the exempt organization itself. All compensation arrangements must be based on services performed for the exempt organization in activities that further its exempt purposes.

As with other arrangements for compensation, arrangements that involve sharing in the exploitation of intellectual property should be decided upon in advance and at arm's length. A showing that the arrangement meets these standards is easier to make if the exempt organization has adopted a written policy governing such compensation arrangements after considering industry norms and the particular arrangement is consistent with that policy.

D. Example 4 - Discussion

In the Bon Ton Cuisine, Inc. (Bon Ton) case, the gift of the Fernaise recipe to charity is not problematic by itself. Nor would the payment of royalties by Bon Ton to the Foundation create problems since the royalties would be excepted from unrelated business income taxation under IRC 512(b)(2). However, an exclusive arrangement with the donor's private company to commercially exploit Fernaise would create a continuing act of self-dealing. IRC 4941(d)(1)(E) provides that an act of self-dealing includes a transfer to, or use by or for the benefit of, a disqualified person of the income or assets of a private foundation. Since Bon Ton Cuisine is wholly owned by Ms. Smith, a disqualified person, it, too, is a disqualified person. This conclusion is not changed by the fact that Bon Ton Cuisine may be paying reasonable fees for the license.

A final thought. If Bon Ton Foundation were other than a private foundation, such as an organization described in IRC 509(a)(3), it would not be subject to self-dealing. However, Bon Ton Foundation's licensing of Bon Ton would still raise private benefit issues if the licensing were arranged under terms that overly favored Bon Ton. An example of such a situation would be a royalty payment by Bon Ton of less than fair market value or the giving of an exclusive license to Bon Ton unless such a license could be shown to be the only practical way to exploit and maintain the value of Bon Ton Foundation's trade secret.

8. Developing the Issues

As the above discussion makes clear, resolution of most intellectual property issues involving exempt organizations depends on a knowledge of industry practices in both the commercial and exempt sectors of the industry. In most cases the best source of information on industry practices is likely to be the exempt organization itself. The typical exempt research institute or university has, or can readily obtain, expert opinions and evidentiary data regarding the industry norms applicable to a particular problem. Holders of valuable patents, trademarks, and copyrights generally have ready access to legal counsel with specialized knowledge of their intellectual property problems. Merely asking the question, "What are the industry norms in this area?" can often produce sufficient information to provide the background necessary to resolve a case problem.

Similarly, the goals and objectives of some activities may not be apparent from the initial description of a transaction or activity. Asking for a plain English statement of how the activity furthers the organization’s exempt purpose is helpful in resolving issues that may seem murky.

The development of issues related to recently enacted IRC 4958, which provides intermediate sanctions short of revocation for an excess benefit transaction, has not been considered in this article because, as of the date of this writing, no regulations have been published. Nevertheless, where persons in positions to exercise substantial influence over the affairs of an organization receive some economic benefit from the creation, development and exploitation of intellectual property, the possibility of an excess benefit transaction that could trigger an intermediate sanction must be considered.

9. Conclusion

For an exempt organization, seeing to appropriate exploitation of its intellectual property rights is no less a fiduciary duty than managing its financial endowment. Money left on deposit in a non-interest bearing account will gradually lose its value to inflation. Intellectual property rights that are not efficiently exploited will eventually expire without ever having produced the public and monetary benefits that could have been achieved. For this reason, exempt organizations should not be discouraged from the timely and vigorous exploitation of their rights in intellectual property.

At the same time, arrangements for commercial exploitation of intellectual property rights should be carefully scrutinized to assure that they are not contrary to industry norms, that they satisfy arm’s-length standards, and that they do not result in excessive compensation or other forms of private benefit or inurement. Arrangements that are suspect should be challenged. The public and the exempt organization should derive benefit from the proper exploitation of intellectual property rights.

APPENDIX

The following article is reprinted from the course book for the Exempt Organizations Continuing Professional Education Technical Instruction Program for 1986.

SCIENTIFIC RESEARCH UNDER IRC 501(c)(3)

1. Introduction

Scientific purposes are among the exempt purposes specified in IRC 501(c)(3). This topic discusses scientific research organizations. In addition to organizations engaged primarily or exclusively in scientific research (SROs), familiar examples of the scientific activities of IRC 501(c)(3) organizations include medical research projects of hospitals and the ongoing research programs of major colleges and universities.

Many organizations exempt under IRC 501(c)(3) engage in some research activities, which may or may not be related to the attainment of the organization's exempt purpose. Even if the research activities are not related to exempt purposes, the unrelated business income tax provisions provide certain statutory exceptions to the imposition of the unrelated tax.

The purpose of this article is to offer a framework for understanding and applying the type of analysis that is useful in resolving both exemption and unrelated business income tax problems. The basic issue is whether a particular activity furthers a scientific purpose within the scope of IRC 501(c)(3).

2. The Three Part Test of Reg. 1.501(c)(3)-d(d)(5)

Reg. 1.501(c)(3)-1(d)(5) is the principal authority for resolving exemption questions and "relatedness" questions under the unrelated business income tax provisions. Section 1.501(c)(3)-1(d)(5) states that the term "scientific" as used in IRC 501(c)(3) includes scientific research in the public interest. This formulation can be broken down into its constituent parts to form three questions: (1) Is the questioned activity scientific? (2) Is it research? and (3) Is it in the public interest? Affirmative answers are necessary to all three questions in order for a particular activity to qualify as scientific research in furtherance of the scientific purpose specified in IRC 501(c)(3).

a. The Meaning of the Term "Scientific" as Used in Section 1.501(c)(3)-1(d)(5)

By simply stating that the term scientific "includes" scientific research in the public interest, Reg. 1.501(c)(3)-1(d)(5) fails to fully define a term that is admittedly difficult to define. While it might be argued that it is no more difficult to define a scientific purpose than it is to define an educational, charitable, or religious purpose, section 351(1) of IRM 7751, the Exempt Organizations Handbook, suggests that the term scientific is not one that can be defined with precision. However, this should not be taken to mean that each person is free to work out his or her own definition of the term and apply it to the particular problem at hand.

Reg. 1.501(c)(3)-1(d)(5)(i) states that the determination of whether research is "scientific" for purposes of IRC 501(c)(3) does not depend on whether such research is classified as "fundamental" or "basic" as contrasted with "applied" or "practical." Therefore, for purposes of IRC 501(c)(3), debates about "pure" science serve no useful purpose.

Another common distinction which is precluded is the one between the "hard" sciences, such as physics or chemistry, and the social sciences, such as sociology or economics. Rev. Rul. 65-50, 1965-1 C.B. 231, holds that an organization engaged in research in the social sciences was furthering educational and scientific purposes and was, therefore, entitled to exemption under IRC 501(c)(3).

Given these limitations, the scientific character of a particular activity cannot necessarily be determined solely by reference to an accepted dictionary definition of the term "scientific." However, courts often use such definitions as a starting place for their analysis of case problems. The following example is from ITT Research Institute v. U.S., No. 655-80T, a U.S. Claims Court case decided on October 15, 1985:

> "The terms 'science' and 'scientific' are not defined in the Internal Revenue Code, Congress apparently having chosen to rely on the commonly understood meaning of the term. The McGraw-Hill Dictionary of Science and Technical Terms, (Lapedes ed., 2d ed., 1978), p. 1414, defines 'science' as a branch of study in which facts are observed, classified, and verified; [or] involves the application of mathematical reasoning and data analysis to natural phenomenon.' The Random House Dictionary of the English Language, p. 1279 (Stein ed., 1967), defines 'science' as [knowledge, as of facts and principles, gained by systematic study.' Thus, in the context of this litigation, 'science' will be defined as the process by which knowledge is systematized or classified through the use of observation, experimentation, or reasoning. See also Midwest Research Institute v. United States, 554 F. Supp. 1379, 1385-86 (W.D. Mo. 1983), aff'd 744 F. 2d 635 (8th Cir. 1984); Oglesby v. Chandler, 288 p. 1034, 1038, 37 Ariz. 1 (1930)."

b. Meaning of the Term "Research" as Used in Section 1.501(c)(3)-1(d)(5)

Section 1.501(c)(3)-1(d)(5)(i) states that the term "[research when taken alone is a word with various meanings; it is not synonymous with 'scientific;' and the nature of particular research depends upon the purpose which it serves." In other words, the regulations do not draw any fine distinctions among the types of information gathering that might be regarded as research. If a questioned activity happens to be similar to an activity deemed to be "research" in a published authority, the problem can be resolved by comparing the situation at hand to the one described in the court case or revenue ruling. Absent such authority, specific definitional problems have to be resolved in the context of the particular situations in which they arise.

Given the range of acceptable definitions of the terms "scientific" and "research," their application to case problems depends primarily on Reg. 1.501(c)(3)-1(d)(5)(ii), which states as follows:

> "Scientific research does not include activities of a type ordinarily carried on as an incident to commercial or industrial operations, as, for example, the ordinary testing or inspection of materials or products or the designing or construction of equipment, buildings, etc."

Rev. Rul. 65-1, 1965-1 C.B. 226, describes the operations of an organization formed to foster the development and design of labor saving agricultural machinery, including the development of new labor saving methods and ideas. The organization conducted studies to determine the need for mechanization of planting, cultivation, and harvesting, which were generally performed manually by agricultural laborers. If an opportunity for successful machine utilization appeared to be possible, the organization determined whether work on such a machine was being undertaken by any public or private institution. If not, the organization made a grant to an appropriate public or private agency to develop the necessary machinery. If the prototype of the machine performed well, the organization sought a patent in its name and licensed a manufacturer to build the device on an exclusive or non-exclusive basis. Any royalties received by the organization were used to develop additional projects.

The revenue ruling reasoned that the development of machinery was equivalent to the "designing or construction of equipment" that is incident to a commercial operation and does not constitute scientific research within the meaning of Reg. 1.501(c)(3)-1(3)(5)(ii). The revenue ruling also concluded that the organization's activities benefited the private interests of the manufacturers of the equipment. Therefore, the organization was not exempt under IRC 501(c)(3).

The reader should be aware that some courts may not agree with this analysis. A case in point is Midwest Research Institute v. U.S., supra. Midwest was an SRO founded to develop agriculture, business, commerce, industry, and natural resources in the Midwest. Approximately 75 percent of Midwest's projects (over 1,000) during the years in issue were for various governmental entities. Because scientific research for such entities automatically qualifies, the issue before the court was not whether the institute had lost its tax-exempt status because of its nonexempt activities, but whether certain of its projects, individually or in the aggregate, did not constitute scientific research carried on in the public interest and were, therefore, "unrelated trade or business." However, in determining "relatedness" the tests of IRC 501(c)(3) would apply.

The district court adopted a restricted interpretation of "ordinary testing or inspection of materials or products:"

> "The testing reference in section (d)(5)(ii) may be given workable application by ruling. . . that the section was adopted to satisfy in part the concerns of commercial testing laboratories, which feared the consequences of tax-exempt status for scientific research institutes such as [the Institute]. Accordingly, the

> section may be interpreted to apply to the type of 'ordinary or routine testing' performed by such laboratories. This work was described as generally repetitive work done by scientifically unsophisticated employees for the purpose of determining whether the item tested met certain specifications, as distinguished from testing done to validate a scientific hypothesis."

The court recognized that while projects may vary in terms of degree of sophistication, "if professional skill is involved in the design and supervision of a project intended to solve a problem through the search for a demonstrable truth, the project would appear to be scientific research" and not ordinary testing.

The court also adopted a restricted interpretation of "designing or construction of equipment, buildings, etc.":

> "With respect to 'design,' we are guided by the reference in the legislative history to research as including 'experimental construction and production.' H.R. Rep. No. 2319, 81st Cong., 1st Sess. 37 (1950). Similarly, the regulations promulgated in a slightly different context (pursuant to. . .section 174 regarding the deductibility of research and development expenditures) distinguish between 'the development of an experimental pilot model' and nondeductible ordinary expenditures. . . .We interpret the 'designing or construction' language, in light of these provisions, to leave exempt the development of prototypes and models. . . .As with the interpretation of 'ordinary testing,' the relevant regulatory distinction between exempt and non-exempt activities is according to degree of sophistication."

It is doubtful that the court in Midwest Research would have round the development of prototypes in Rev. Rul. 65-1 to have been of a type ordinarily carried on as an incident to commercial or industrial operations. It appears that the organization's activities were limited to activities leading up to the development of a prototype or model, and were not the kind of unsophisticated activities considered by the court to be ordinary design or construction.

The claims court might have similar problems with Rev. Rul. 65-1. ITT Research Institute, supra, was an SRO that was multi-disciplinary in nature and served numerous clients. Many of the research programs produced products. Under the facts or the case, the court did not find this inconsistent with "scientific research."

> "The testimony further indicated that IITRI was not involved in the commercialization of the products or process developed as a result of its research. IITRI would only develop a project to the point where the research principles were established. At this point, the sponsors would make the principles available to different customers, usually in the form of newly developed products or equipment. Also, the evidence showed that IITRI did not conduct consumer or market research, social sciences research, or ordinary testing of the type which is carried on incident to commercial operations.

> IITRI's activities, therefore cannot be said to run afoul of the 'commercial operations' section of Treas. Reg. section 1.501(c)(3)-1 (d)(5)(ii). The fact that research is directed towards solving a particular industrial problem does not necessarily indicate that the research is not scientific."

Rev. Rul. 68-373, 1968-2 C.B. 206, describes a nonprofit organization engaged in the clinical testing of drugs for commercial pharmaceutical companies. The tests were required in order for the companies to obtain approval of the Food and Drug Administration to market the products being tested. The companies selected the products to be tested. The results of the tests were available for publication in various scientific and medical journals. The revenue ruling holds that the testing was clinical testing incident to a pharmaceutical company's ordinary commercial operations and that the testing served the private interests of the drug manufacturers rather than the public interest. Therefore, the organization was not exempt under IRC 501(c)(3).

The standards set forth in Rev. Ruls. 55-1 and 68-373 are most useful in a manufacturing context. These authorities have more limited utility when applied to commercially sponsored research projects funded by private high technology enterprises such as, for example, firms engaged in producing advanced biomedical equipment. The "ordinary commercial activity" of such a firm may include scientific research projects and the design and testing of experimental prototypes of new equipment. Instead or conducting the research or experimental testing itself, the biomedical firm may contract for these tasks to be performed by an exempt scientific research organization. When the nonprofit research organization performs the research, is it engaged in activities of a type ordinarily carried on as an incident to the commercial operations of the sponsor?

Chief Counsel addressed a question of this kind in G.C.M. 39196, dated August 31, 1983. While the G.C.M. cannot be used or cited as precedent, it does offer some guidance concerning the type of analysis that is appropriate in deciding whether a particular activity is testing incident to ordinarily commercial or industrial operations.

> "In differentiating between research and testing, it may be helpful to look at how the distinction is made in a slightly different context. Treas. Reg. section 1.174-2 defines 'research and experimental expenditures' as follows:
>
> "'Expenditures incurred in connection with the taxpayer's trade or business which represent research and development costs in the experimental or laboratory sense. The term includes generally all such costs incident to the development of an experimental or pilot model, a plant process, a product, a formula, an invention, or similar property, and the improvement of already existing property of the type mentioned. The term does not include expenditures such as those <u>for the ordinary testing or inspection of materials or products for quality control</u> or those for efficiency surveys, management studies, consumer surveys, advertising, or promotion. [Emphasis added.]

"'Thus, for example, testing blood samples or other samples for trace elements lacks the uniqueness or originality which is inherent in the concept of research. Projects of this type have all the indicia of ordinary testing: a standard procedure is used, no intellectual questions are posed, the work is routine and repetitive and the procedure is merely a matter of quality control. As such these studies cannot be considered 'scientific research.'"

Chief Counsel's discussion indicates that it is the nature of the activities rather than the nature of the organization, which determines whether its research activities are "scientific research" or "ordinary testing." Scientific research can be performed by a commercial enterprise or by an exempt organization. It is scientific research in either case. Therefore, the question posed earlier can be answered this way: A commercial enterprise engaged in scientific research can either do its own research or contract it out to an exempt scientific research organization. If the commercial firm contracts out scientific research to an exempt organization, such research will not become, by virtue of that fact alone, ordinary testing incident to commercial operations for the exempt organization performing the research.

c. Meaning of the Phrase "In the Public Interest" as Used in Section 1.501(c)(3)-1(d)(5)

As the regulations indicate, conducting scientific research is not sufficient to qualify an organization for IRC 501(c)(3) status. The scientific research must be "in the public interest."

There is a generally recognized distinction between the public interest and the private interests of individuals or business enterprises. However, as used in section 1.501(c)(3)-1(d)(5)(iii) the phrase has a specialized meaning. Section 1.501(c)(3)-1(d)(5)(iii), states that scientific research will be regarded as carried on in the public interest if --

"(a) The results of the research (including any patents, copyrights, processes, or formulae resulting from such research) are made available to the public on a nondiscriminatory basis;

"(b) The research is performed for the United States, or any of its agencies or instrumentalities, or for a State or political subdivision thereof; or

"(c) The research is directed toward benefiting the public." [Emphasis added.]

Most of the controversies have arisen under subdivision (iii)(c) of Reg. 1.501(c)(3)-1(d)(5) (sometimes referred to as (iii)(c)). The regulations define the term "directed toward benefiting the public" by giving examples of some types of research that satisfy the requirement and some that do not. Scientific research which will be considered as directed toward benefiting the public, and, therefore, will be regarded as carried on in the public interest, includes the following:

"(1) Scientific research carried on for the purpose of aiding in the scientific education of college or university students;

> "(2) Scientific research carried on for the purpose of obtaining scientific information which is published in a treatise, thesis, trade publication, or in any other form that is available to the interested public;
>
> "(3) Scientific research carried on for the purpose of discovering a cure for a disease; or
>
> "(4) Scientific research carried on for the purpose of aiding a community or geographical area or attracting new industry to the community or area or by encouraging the development of, or retention of, an industry in the community or area."

The regulation further provides that research which is otherwise "directed toward benefiting the public" within the meaning of "(iii)(c)" will not be disqualified because the sponsor of the research has the right pursuant to a contract or other agreement to obtain ownership or control of any patents, copyrights, processes, or formulae resulting from the research.

The regulations do not expressly preclude an organization from showing that its activities are in the public interest even though the activities are not specifically described in any of the categories or examples set forth in "(iii)(c)." However, if an organization's scientific research activities are not described in that section, the public benefits from the activities will generally be too ill-defined, remote, or conjectural in nature to support the conclusion that they are in the public interest. For example, the organization described in Rev. Rul. 65-1 argued that its improved farm machinery would increase agricultural production and make more food available at lower prices. This would benefit the hungry and impoverished. The revenue ruling notes this argument, but nonetheless concludes that the organization's activities served the private interests of farm equipment manufacturers rather than the public interest.

The public benefit argument has been used by Service personnel as a basis for incorrectly challenging commercially sponsored scientific research projects in cases where the publication and other requirements of "(iii)(c)" were satisfied. Such challenges are made by pointing out the immediate benefits the commercial enterprise expects to receive and contrasting them to the more remote and/or conjectural benefits the public will derive as a result of publication of the research findings.

Rev. Rul. 76-296, 1976-2 C.B. 142, is the controlling authority on this subject. The revenue ruling deals with the publication requirement as well as the question of the commercial sponsor's right to exploit the results of the research findings. It was published to provide a clear example of how problems involving commercially sponsored scientific research projects should be treated.

The revenue ruling describes two situations. In Situation 1 an exempt scientific research organization engaged in commercially sponsored scientific research projects and informed the interested public of the results of the research by timely publication of its findings. The publication was timely even though the organization allowed the lapse of a reasonable time in order to afford the sponsor an opportunity to establish patent, copyright, or other ownership interests in the fruits of the study. In Situation 2 an exempt SRO engaged in commercially sponsored scientific research projects and kept secret or unreasonably delayed publishing the results of the project in order to serve some private interest of the project's commercial sponsor.

As the revenue ruling points out, the second example of "(iii)(c)" notes that scientific research will be regarded as carried on in the public interest if the research is carried on for the purpose of obtaining scientific information which is published in a treatise, thesis, trade publication, or in any other form that is available to the interested public. The regulation also provides that scientific research described in (iii)(c) will be regarded as carried on in the public interest even though such research is performed pursuant to a contract or agreement under which the sponsor or sponsors of the research have the right to obtain ownership or control of any patents, copyrights, processes, or formulae resulting from such research. Because the organization described in Situation 1 timely published the results of its commercially sponsored scientific research projects, the requirements of "(iii)(c)" were satisfied and the income received from performing the research was not subject to the unrelated business income tax. However, because the organization described in Situation 2 did not timely publish the results of its commercially sponsored scientific research project, income received from its project was subject to the unrelated business income tax.

Rev. Rul. 76-296 leaves little room for doubt that a commercial sponsor of scientific research may retain all rights associated with that research without destroying the exempt quality of the research so long as the publication requirement is met.

Although "(iii)(c)" somewhat simplifies the determination of whether certain activities are scientific research in the public interest, many issues must still be resolved. A case in point is Midwest Research Institute v. U.S., 554 F. Supp. 1379 (W.D. Mo. 1983), aff'd 744-F.2d 635 (8th Cir. 1984).

Midwest Research Institute, an exempt SRO, had engaged in a variety of challenged research activities. In deciding whether the projects had produced unrelated business taxable income, the court found that most of the activities were scientific research as distinguished from ordinary testing. It then turned to the task of deciding whether the scientific research projects were scientific research "in the public interest."

The court rejected a painstaking analysis of the facts and circumstances in favor of an analysis based on "(iii)(c)." The Institute argued that the purpose of all or the projects, which spanned several states, was to develop or retain industry in a "geographic area" as approved by the fourth example in Reg. "(iii)(c)." The Service argued for a more restrictive definition of geographic area, which would have put many of the projects outside the scope of the example. The court was not persuaded that any such restriction was contained in the regulations or that it could reasonably be inferred from them. It accepted the Institute's argument that the projects had been conducted for the purpose of improving industry in a geographic area--the Midwest.

More troubling is that the court in Midwest suggested that any research carried on to aid industry within the Midwest aided that geographic area and was therefore in the public interest. (This could be true even if the sponsors themselves were outside the Midwest because projects performed outside this area may attract industry to the area.) The court failed to analyze whether there was a causal relationship between the performance of each contract and geographic benefit. We believe that each project should be evaluated separately to determine how it specifically and significantly benefits the region or otherwise accomplishes the exempt purposes of the organization.

One final note on the so-called "publication" requirement. The "(iii)(c)" regulation gives four examples of research directed toward benefiting the public and the publication requirement is mentioned only with respect to one example; i.e., research carried on for the purpose of obtaining scientific information. Thus, it would appear that such requirement does not apply to the other three examples. Consistent with this analysis, an organization could conduct research for the purpose of discovering a cure for a disease, for example, and it would not be required to publish the results of the research. Similarly, research carried on to attract industry to a community would not have to be published. The court in Midwest agreed with this analysis. It stated that the "separate publication provision in the regulation. . . rebuts the notion. . . behind [the] suggestion that the results of the research must be generally available to benefit the public."

d. Scientific Research Not Qualifying Under IRC 501(c)(3)

Reg. 1.501(c)(3)-1(d)(5)(iv) states that an organization will not be organized and operated for the purpose of carrying on scientific research in the public interest and consequently will not qualify under IRC 501(c)(3) as a scientific organization if --

> "(a) Such organization will perform research only for persons which are (directly or indirectly) its creators and which are not described in section 501(c)(3), or
>
> "(b) Such organization retains (directly or indirectly) the ownership or control of more than an insubstantial portion of the patents, copyrights, processes, or formulae resulting from its research and does not make such patents, copyrights, processes, or formulae available to the public."

Reg. 1.501(c)(3)-1(d)(5)(iv)(b) further provides that a patent, copyright, process, or formula will be considered as "made available to the public" even though one person has been granted an exclusive right to the use of the patent, copyright, process, or formula if the granting of the exclusive right is the only practicable way in which the patent, copyright, process, or formula can be utilized to benefit the public. In such a case, however, the research from which the patent, process, copyright, or formula resulted will be regarded as carried on in the public interest only if one of the two other tests of Reg. 1.501(c)(3)-1(d)(5)(iii) are met. Thus, the research must be carried on for the United States, its agencies, etc., ((iii)(b)) or it must be research directed toward benefiting the public. (See the four examples of subsection "(iii)(c)" given earlier, starting with "research to aid the education of university students.")

G.C.M. 37378, dated January 13, 1978, applied Reg. 1.501(c)(3)-1(d)(iv)(a) to a particular set of facts. While the G.C.M. itself cannot be used or cited as precedent, the factual situation is an example of the type of problem this section of the regulations is designed to address.

Fifteen commercial enterprises engaged in oil, chemical, and metallurgical activities formed a nonprofit organization to conduct research in the field of particulate solids. Particulate solids constitute part of the emissions produced by many industrial operations. Therefore, research findings in this field would be useful in developing processes or devices to reduce the noxious emissions of industrial plants.

Membership in the nonprofit corporation carried with it the right to elect directors of the corporation and a person to fill a seat on the organization's technical advisory committee. Payment of a stipulated amount entitled the member to obtain additional one or two seats on the technical advisory committee.

The organization argued that its research findings would be timely published in a form available to the interested public. The G.C.M. concluded that this representation was not persuasive in view of the fact that the organization's by-laws provided that member companies would "neither publish nor furnish otherwise to third parties" such technical information and data as might be developed by the research organization. Therefore, the G.C.M. concluded that the publication requirement of section 1.501(c)(3)-1(d)(5)(iii)(c) was not satisfied. The G.C.M. then discussed the application of section 1.501(c)(3)-1(d)(5)(iv)(a) to the facts described:

> "Furthermore, we conclude that the organization runs afoul of Treas. Reg. section 1.501(c)(3)-1(d)(5)(iv)(a), which provides that an organization will not be deemed to carry on scientific research in the public interest when such organization will perform research only for persons which are not described in section 501(c)(3). PSRI's structure, whereby members essentially pay for seats on the board of directors and technical advisory committee, strongly suggests that the research projects undertaken, and the priority, which they will be given, are determined in accord with the private interests of the member companies. Thus, PSRI's administrative structure lends substantial support to a conclusion that it is an organization run in the manner described in Treas. Reg. section 1.501(c)(3)-1(d)(5)(iv)(a) and that it is therefore not qualified for exemption."

Rev. Rul. 69-632, 1969-2 C.B. 120, is a published example of a similar situation involving Reg. 1.501(c)(3)-1(3)(5)(iv), along with other sections of the regulations. In that case, a nonprofit association was formed by members of a particular industry to develop new and improved uses for existing products of the industry. The organization contracted out the necessary research, the results or which were timely published in a form available to the interested public. The organization's members selected research projects in order to increase their sales by creating new uses and markets for their products. The revenue ruling holds that the organization served the private interests of its creators and, therefore, it was not entitled to exemption under IRC 501(c)(3). However, because no services were performed for individual members and the activities of the organization were directed to improving conditions in the industry as a whole, the organization was held to be entitled to exemption under IRC 501(c)(6).

There do not appear to be any cases that have been decided under that portion of section 1.501(c)(3)-1(d)(5)(iv)(b) that precludes exemption for an organization that retains the ownership or control or more than an insubstantial number of the patents, copyrights, processes, or formulae resulting from its research. This provision should be contrasted with subsection "(iii)(c)" which provides that in the case of commercially sponsored research projects, the sponsoring organization may obtain ownership or control of any patents, copyrights, processes, or formulae resulting from the research.

No decisions of precedential value appear to have been made interpreting that portion of section 1.501(c)(3)-1(d)(5)(iv)(b) dealing with an exclusive license as the only practicable means of making an invention available to the public. It appears that this provision might apply in the case of scientific research, which had produced a drug or useful invention, but one for which the potential market was extremely small. In such a case, it could be uneconomical for any potential manufacturer of the drug or device to go to the expense of "tooling up" for production unless it could be assured that the potential market would not undergo shrinkage due to the manufacture of the same drug or device by its competitors. Therefore, the only practicable means of making the drug or invention available to the public would be an exclusive license. Under such circumstances, if the SRO retained the patent rights to the drug or device it would not run afoul of subsection "(iv)(b)" that in general precludes retaining substantial rights.

3. <u>Unrelated Business Income Tax Issues</u>

Unrelated business issues generally come into play when a scientific research organization has established its exempt status and is actively engaged in a variety of scientific research projects. Typically, several hundred projects may he undertaken during the course of a year. Because the SRO is exempt under IRC 501(c)(3), all but a relatively small number of the projects will generally be projects, which clearly fall within one of the categories of "scientific research in the public interest" specified in Reg. 1.501(c)(3)-1(d)(5)(iii). Rut some of the projects will not clearly be within any or the categories and some may appear to be ordinary testing incident to commercial or industrial operations. A second way in which unrelated business issues can occur is that an organization, such as a college or university, which is not exempt as a scientific research organization, may engage in some research activities that do not appear to advance the organization's exempt purpose. In either case, if the projects produce income, sections 511-513 must be considered.

Reg. 1.513-1(a) defines the term "unrelated business taxable income" as the gross income derived from any trade or business regularly carried on by an exempt organization which is not substantially related (aside from the need of the organization for funds) to the exercise of the organization's exempt function. Therefore, unrelated business issues involve a series of questions: (1) Is the activity related or unrelated to the attainment of the organization's exempt purpose? (2) Is it trade or business? and (3) Is it regularly carried on?

With respect to IRC 501(c)(3) organizations, the regulations under section 1.501(c)(3)-1(d)(5) are generally helpful in considering "relatedness" questions when the organization is a scientific research organization. If the exempt organization is not an SRO the "relatedness" question must be decided on the basis of the particular organization's exempt purpose and whether the particular research activity is substantially related to that exempt purpose. Similarly, questions as to whether a particular activity is trade or business and whether it is regularly carried on have to be resolved on the basis of authorities and precedents specifically applicable to those issues. However, because of the nature of research activities (ongoing, income producing activities), they almost always constitute trade or business regularly carried on.

Even when there is an unrelated trade or business activity regularly carried on, the income from such activity still may not be subject to tax because many kinds of income are excluded from tax by exceptions and exclusions contained in IRC 512(b). The exceptions for royalties, research for governmental entities, and research by universities, colleges, and hospitals are the provisions generally invoked to shield income from the UBIT.

IRC 512(b)(2) excludes from the calculation of unrelated business taxable income all royalties (including overriding royalties), whether measured by gross or taxable income from the property and all deductions directly connected with such income. To be a royalty, a payment must relate to the use made of a valuable right. Payments for the use of patents, trademarks, etc., are ordinarily classified as royalties.

The exclusion of royalties on patents retained by an IRC 501(c)(3) organization assumes that the retention and licensing of the patents does not result in loss of exempt status under Reg. 1.501(c)(3)-1(d)(5)(iv). See the previous discussion of this issue in this article.

The statutory sections providing for the exclusion of income derived from research for governmental entities, etc., have corollary provisions in the regulations, which are grouped together under the heading "Research" in section 1.512(h)-1(f). Subparagraph (1) or the regulation deals with the exclusion for income from research performed for the United States or any of its agencies or instrumentalities or a State or political subdivision of a State. Subparagraph 2 excludes the income of a college, university, or hospital from research performed for any person. Subparagraph 3 excludes all income from research conducted by an organization operated primarily for the purpose of carrying on fundamental, as distinguished from applied, research. Subparagraph (4) reiterates that the income of an organization from ordinary testing incidental to commercial or industrial operations is not excludable as income derived from scientific research in the public interest.

A typical example of the way the royalty exception works in actual practice is contained in TAM 8028004.

The technical advice memorandum explained that M, the exempt SRO, had particular expertise in the field of advanced medical diagnostic equipment. Pursuant to a contractual understanding with S, a commercial enterprise, M developed an add-on device for use With S's already existing diagnostic machine, which was then available on the commercial market. The results of the project were never published.

In exchange for doing the research and development work for S, M received the right to a five percent royalty on net sales of the add-on unit. The activity of developing the add-on unit was found not to be scientific research in the public interest because the results were never published and the work done was ordinary testing incident to the expansion of S's existing product line. The National Office concluded that the research project was unrelated trade or business. However, the five percent share of net sales of the add-on unit produced no tax consequences for M because the income was excluded from the computation of unrelated business tax as a royalty by IRC 512(b)(2).

IRC 512(b)(7) provides that in computing the unrelated business income tax there shall be excluded all income derived from research for--

"(A) the United States, or any of its agencies or instrumentalities, or

"(B) any State or political subdivision thereof."

While the section itself is straightforward, the problem is determining whether the section applies to a particular research project.

For example, one of the projects challenged in TAM 8028004 was funded by a public utility, which was a department of the city of Q. The aim of the project was to determine the commercial feasibility of solar hot water heaters. If the solar hot water heaters were commercially feasible, the public utility planned to eventually market them to its customers. The District Office sought to impose the UBIT on the income derived by the exempt organization from performing the feasibility study on the theory that the project was ordinary testing incidental to the commercial activity of marketing the solar hot water heaters. The National Office agreed that the activity was not scientific research in the public interest, but pointed out that the income from the project was not subject to the UBIT because the project was conducted for the city of Q and was, therefore, described in IRC 512(b)(7).

IRC 512(b)(8) of the Code provides an exclusion from the UBIT in the case of a college, university, or hospital for all income derived from research performed for any person. Issues arise with surprising frequency under IRC 512(b)(8) because organizations involved in research activities often have some relationship to or connection with a college, university, or hospital and they attempt to use that relationship to shield unrelated research income from taxation.

In G.C.M. 39196, supra, the research institute argued that it was merely an extension of a state university. In support of that contention the institute relied on the fact that the state legislature had authorized the university to establish, develop, and administer a research institute. The institute was the entity created pursuant to this grant of legislative authority. The institute also pointed out that its initial funding had been provided by the university, it was controlled by the same persons who controlled the university, its facilities were used for joint research projects with the university, and faculty and graduate students of the university used the institute's facilities for various educational purposes.

The G.C.M. conceded that these facts established that there were significant ties between the institute and the university. However, the institute itself had acknowledged that it was a legally distinct and separate organization from the university. It had its own corporate charter and its own exemption from federal income tax. It sought its own funding from state and federal agencies and other sources. The G.C.M. stressed these facts, as well as the intended effect or the exclusion provided by IRC 512(b)(8) in determining whether the institute could avail itself of the exclusion provided by that section.

> "Congress, in excluding university research from taxation, anticipated that the purpose of such research, as reflected in the regulations, would be related to the primary exempt purpose of a university (i.e., teaching students). If such research led to private contracts, the university would not be required to separate these out for unrelated income tax purposes. To make the opposite assumption, that Congress was not concerned with whether the research was related to the university's exempt function would allow any commercial research organization to have all its income from research excluded merely through affiliation, however tangential, with a university. We do not believe Congress intended that result.
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> * * * * *
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> "After considering all the facts and circumstances, including the Institute's separate incorporation, separate purposes, separate facilities and separate operations, it is our view that the Institute is not merely or solely an extension of the University. It has, by its own assertion, requested federal agencies that sponsor its research to consider it an entity separate and apart from the University. It has stated in its Articles of Incorporation that its primary purpose is carrying on non-instructional applied contractual research, a purpose significantly different from that of a university. It presents no formal course of instruction, maintains no faculty and has no regular student body. As a consequence, we believe it is not a university and its income should not be excluded from unrelated business taxable income under section 512(b)(8)."

IRC 512(b)(9) provides that, in the case of an organization operated primarily for purposes of carrying on fundamental research the results of which are freely available to the general public, all income derived from research performed for any person, and all deductions directly connected with such income, shall be excluded in computing unrelated business taxable income. The term 'fundamental research,' as contrasted with 'applied research,' does not include research carried on for the primary purpose of commercial or industrial application. See Regs. 1.501(c)(3)-1(d)(5)(i) and 1.512(b)-1(f)(4).

4. Other Commentaries and Authorities

For the views of an outside practitioner on the scientific section of the regulations (and citations to additional authorities) see "Collaboration Between Tax-Exempt Research

Organizations and Commercial Enterprises--Federal Income Tax Limitations" by Kendyl K. Monroe in the May, 1984 issue of TAXES-THE TAX MAGAZINE.

Although this topic addresses scientific research, it is recognized that an organization could qualify for exemption under IRC 501(c)(3) as a scientific organization or as an organization "promoting" scientific research. In a recent case, Washington Research Foundation v. C.I.R., T.C. Memo 1985-570, decided on November 21, 1985, an organization sought a declaratory judgment that it was educational and promoted scientific research under IRC 501(c)(3). The organization argued that its activities furthered scientific purposes even though it was not itself engaged in scientific research. The organization had entered into an agreement with the University of Washington. Under the terms of the agreement, the Foundation would be assigned the University's right to the results of the University's research projects. The Foundation would then see to securing patents and license agreements. Royalties received under the licensing agreements after recovering the Foundation's operating expenses would flow to the University to support further research projects. In addition, the organization intended to provide a clearinghouse of information to cause the exchange of available and needed technology. It proposed to publish a science newsletter, sponsor seminars, and publish information for the general public at no cost. It had already co-sponsored a seminar and workshop to educate researchers on the practical applications of their research and to discover new areas to research. The court recognized that research is not the only activity that can be scientific citing Research Foundation, Inc. v. United States, 181 F. Supp. 526 (S.D. Ill. 1960) that involved the publication of scientific booklets. However, the court concluded that the organization's activities were not scientific nor were they advancing scientific research. While acknowledging that some activities advanced education, the court found an overriding commercial purpose in denying exemption under IRC 501(c)(3).

Addendum to Appendix

As discussed in the Appendix, there are a variety of exclusions from unrelated trade or business income taxation involving income derived from the licensing of a patent or similar property. Some of the exclusions consider the treatment of amounts under the royalty exception of IRC 512(b)(2).

Royalties are typically paid under licensing agreements. However, income derived from a transfer of substantially all the rights to a patent or similar property by an exempt organization, even though effectuated through an exclusive licensing agreement, is treated as a sale, exchange or other disposition of property rather than a royalty. See Allied Chemical Corp. v. U.S., 66-1 USTC para. 9212. IRC 512(b)(5) would provide an exception from unrelated business income tax for such a sale, exchange, or other disposition of property unless: (1) under IRC 512(b)(5)(A) the property giving rise to the income is stock in trade or other property of a kind which would properly be includible in inventory if on hand at the close of the taxable year; (2) under IRC 512(b)(5)(B) it is property held primarily for sale to customers in the ordinary course of the trade or business; or (3) under IRC 512(b)(4) it is debt-financed property as defined in IRC 514.

The granting of a nonexclusive license does not convey substantially all of the owners rights in the property and, therefore, results in the realization of royalty income that may be excluded under IRC 512(b)(2) rather than income from the sale, exchange, or other disposition of a capital asset that may be excluded under IRC 512(b)(5). In this connection, it should be noted that unpatented inventions and applications for patents, as well as patents themselves, may be treated as capital assets.