NATIONAL INSTITUTES OF HEALTH
OFFICE OF THE DIRECTOR

In the Case of

Xalatan®

Manufactured by

PFIZER, INC.

Introduction

The NIH received letters from the public requesting that the Government exercise its march-in rights under the Bayh-Dole Act (Act), 35 U.S.C. §§ 200-212, in connection with one or more patents owned by Pfizer, Inc. (Pfizer). The letters expressed concern that the price of Xalatan® is higher in the United States than in Canada or Europe. Xalatan® is covered by licenses and patents and marketed by Pfizer for the treatment of patients with glaucoma.

The march-in provision of the Act, 35 U.S.C. § 203, implemented by 37 C.F.R. § 401.6, authorizes the Government, in certain specified circumstances, to require the funding recipient or its exclusive licensee to license a federally funded invention to a responsible applicant or applicants on reasonable terms, or to grant such a license itself.

After careful analysis of the Bayh-Dole Act and considering all the facts in this case as well as comments received, the National Institutes of Health (NIH) has determined that it will not initiate a march-in proceeding as it does not believe that such a proceeding is warranted based on the available information and the statutory and regulatory framework.

Background on the Invention

The basic concept that prostaglandins could be used to reduce intraocular pressure in treating ocular hypertension and glaucoma was developed at Columbia University (Columbia) under NIH-funded grants in the 1970s and early 1980s. Latanoprost, developed several years later in a collaborative effort between Columbia and Pharmacia Corporation, falls within the claims of U.S. Patent No. 4,599,353 that expires on July 28, 2006. Latanoprost was originally exclusively licensed to Pharmacia Corporation that, in 2003, merged with Pfizer. In 1996, latanoprost (sold under the tradename Xalatan®) was approved by the Food and Drug Administration (FDA) for marketing as a second-line treatment. In 2002, it received FDA approval as a first-line treatment for glaucoma.

Pfizer holds at least three other U.S. patents[1] that cover certain aspects of the marketed compounds and methods and are not subject inventions within the meaning of the term as defined in 35 U.S.C. § 201(e).[2] These inventions would not be subject to the Government's march-in authority.

Statutory and Regulatory Background

The stated policy and objective of the Bayh-Dole Act are:

> to use the patent system to promote the utilization of inventions arising from federally supported research or development; to encourage maximum participation of small business firms in federally supported research and development efforts; to promote collaboration between commercial concerns and nonprofit organizations, including universities; to ensure that inventions made by nonprofit organizations and small business firms are used in a manner to promote free competition and enterprise without unduly encumbering future research and discovery; to promote the commercialization and public availability of inventions made in the United States by United States industry and labor; to ensure that the Government obtains sufficient rights in federally supported inventions to meet the needs of the Government and protect the public against nonuse or unreasonable use of inventions; and to minimize the costs of administering policies in this area.

Act at § 200. Toward this goal, the Act addresses not only rules governing the licensing of Government-owned inventions, but also addresses the rights of Federal contractors[3] to elect title to inventions made with Federal funding.

In giving contractors the right to elect title to inventions made with Federal funding, the Act also includes various safeguards on the public investment in the research. For example, the Federal agency retains a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any subject invention throughout the world. See 35 U.S.C. § 202(c)(4). In addition, the Act includes march-in rights which provide a Federal agency

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[1]These patents include U.S. Patent Nos. 5,296,504 and 5,422,368, due to expire in 2011, and 6,429,226, due to expire in 2009. None of these patents involve any federal funding.

[2]The term "subject invention" means any invention of the funding recipient conceived or first actually reduced to practice in the performance of work under a funding agreement.

[3] Section 201(c) defines the term "contractor" as any person, small business firm, or nonprofit organization that is a party to a funding agreement. Executive Order 12591 expanded this definition to include large businesses.

with the authority, in certain very limited and specified circumstances, to make sure that a federally funded invention is made available to the public. The march-in provisions are set out in Section 203(a), which states that:

> With respect to any subject invention in which a small business firm or nonprofit organization has acquired title under this chapter, the Federal agency under whose funding agreement the subject invention was made shall have the right, in accordance with such procedures as are provided in regulations promulgated hereunder to require the contractor, an assignee or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the contractor, assignee, or exclusive licensee refuses such request, to grant such a license itself, if the Federal agency determines that such -
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> (1) action is necessary because the contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;
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> (2) action is necessary to alleviate health or safety needs which are not reasonably satisfied by the contractor, assignee, or their licensees;
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> (3) action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the contractor, assignee, or licensees; or
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> (4) action is necessary because the agreement required by section 204 has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of its agreement obtained pursuant to section 204.

The Department of Commerce regulations implementing the Act and specifying the procedures that govern the exercise of march-in proceedings are set forth at 37 C.F.R. § 401.6. The regulations provide that whenever an agency receives information that it believes might warrant the exercise of march-in rights, it may initiate a march-in proceeding after notification of the contractor and a request to the contractor for informal written or oral comments.

Public Comments

The NIH has received written comments from a variety of groups and individuals representing universities, the patient community, drafters of the Bayh-Dole Act, and other interested parties.

After carefully considering all the information provided and otherwise made available, the NIH does not believe the initiation of a march-in proceeding is warranted.

Discussion

The NIH is the steward of medical and behavioral research for the Nation. Its mission is science in pursuit of fundamental knowledge about the nature and behavior of living systems and the application of that knowledge to extend healthy life and reduce the burdens of illness and disability. Each year, a wealth of scientific discoveries emanates from the NIH intramural laboratories and from extramural activities under grants and contracts. Bringing these discoveries from "the bench to the bedside" requires drug and product development, scale-up, clinical testing, and finally marketing and distribution. Success in accomplishing this colossal task and fulfilling our primary mission of improving public health requires the participation of industry partners.

The NIH supports fundamental research that may lead to the development of pharmaceutical products. Occasionally, the NIH funds a technology that ultimately is incorporated into a commercial product or process for making a commercial product. It is important to the NIH that pharmaceutical companies commercialize new health care products and processes incorporating NIH-funded technology thereby making the technology available to the public. A central purpose of the Bayh-Dole Act involves the development and commercialization of such products out of federally funded research.

Section 203(a) of the Act provides in part that march-in rights may be exercised by the funding Federal agency based on any of four conditions: (1) when "practical application" of the subject invention has not been achieved or is not expected to be achieved in a reasonable time, (2) when the action is necessary to alleviate health or safety needs, (3) when action is necessary to meet requirements for public use specified by Federal regulation that the contractor has failed to meet or (4) when the U.S. industry preference of Section 204 of the Act has not been met. The third and fourth conditions are not relevant to this discussion[4].

Practical Application of the Subject Inventions

A composition or product, such as Xalatan®, that has achieved practical application is defined in Section 201(f) to mean that it is manufactured "under such conditions as to establish that the invention is being utilized and that its benefits are to the extent permitted by law or Government regulations available to the public on reasonable terms."

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[4]The last two conditions are clearly not relevant. Subparagraph (3) narrowly applies to "public use" specified by Federal regulations, but there are no regulations that apply in this case. Subparagraph (4) is not relevant because Pfizer substantially manufactures Xalatan® in the United States.

In 1997, the NIH reviewed a march-in request from CellPro, Inc., that asserted Baxter Healthcare Corporation (Baxter) had failed to take effective steps to achieve practical application of the subject inventions. NIH determined that Baxter "met the statutory and regulatory standard for practical application" as evidenced by its "manufacture, practice, and operation" of the invention and the invention's "availability to and use by the public . . . ." Accordingly, the NIH determined not to initiate march-in proceedings.[5]

In August 2004, the NIH issued its March-In Position Paper in the Case of Norvir® that is available on the NIH Office of Technology Transfer Web site. In that case, NIH determined that it did not have information that led it to believe that the exercise of march-in rights might be warranted because the drug had been available since 1996 and was being actively marketed by the company and prescribed by physicians. Accordingly, the drug had reached practical application and met health or safety needs as required by the Bayh-Dole Act.[6] Furthermore, the position paper held that the issue of drug pricing was properly left to Congress to address.

Similar to the other two cases, the record in this instance demonstrates that Pfizer has met the standard for achieving practical application of the applicable patents by its manufacture, practice, and operation of latanoprost and the drug's availability and use by the public.

Latanoprost has been on the market and available to glaucoma patients since 1996, when it was introduced and sold under the tradename Xalatan®. Thus, the invention has reached practical application because it is being utilized and has been made widely available for use by glaucoma patients for at least eight years.

Health or Safety Needs

Xalatan® has been approved by the Food and Drug Administration as safe and effective and is being widely prescribed by physicians as both a first-line and second-line treatment. No evidence has been presented that march-in could alleviate any health or safety needs that are not reasonably satisfied by Pfizer. Rather, the argument advanced is that the product should be available at the same price as that charged in other countries, which is addressed below. Thus, the NIH concludes that Pfizer has met the statutory and regulatory standard for health or safety needs.

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[5]The determination also evaluated the health or safety need prong and found that Baxter had "taken appropriate steps to reasonably satisfy this need." The other two prongs were held to be "clearly not relevant."

[6]The other two prongs were held to be "clearly not relevant."

Drug Pricing

Finally, the issue of the cost or pricing of drugs that include inventive technologies made using Federal funds is one which has attracted the attention of Congress in several contexts that are much broader than the one at hand.[7] In addition, because the market dynamics for all products developed pursuant to licensing rights under the Bayh-Dole Act could be altered if prices on such products were directed in any way by the NIH, the NIH believes that the extraordinary remedy of march-in is not an appropriate means of controlling prices. The issue of whether drugs should be sold in the United States for the same price as they are sold in Canada and Europe has global implications and, thus, is appropriately left for Congress to address legislatively.

Conclusion

Xalatan® has been available for use by glaucoma patients since 1996 and is being actively marketed by Pfizer and prescribed by physicians as both a first-line and second-line treatment. Accordingly, this drug has reached practical application and met health or safety needs as required by the Bayh-Dole Act. The NIH believes that the issue of whether drug pricing should be consistent across the spectrum of developing countries is one that would be more appropriately addressed by Congress, as it considers these matters in a larger context.

The NIH is cognizant of the care with which Congress crafted the march-in language and understands that it has the responsibility to exercise its march-in authority deliberately and with great care. As such, the NIH has determined that it does not have information that leads it to believe that the exercise of march-in rights might be warranted in this case within the meaning of 35 U.S.C. § 203.

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[7]In addition, NIH addressed the role of NIH in the pricing of drugs in reports to Congress including "A Plan to Ensure Taxpayers' Interests are Protected," July 2001, available at http://www.nih.gov/news/070101wyden.htm and "Affordability of Inventions and Products," July 2004 available at http://ott.od.nih.gov/NewPages/211856ottrept.pdf.